

Mitigation Monitoring and Reporting Program for the
American River Watershed Common Features Project/
Natomas Post-authorization Change Report/Natomas Levee
Improvement Program, Phase 4b Landside Improvements Project



State Clearinghouse No. 2009112025

Prepared for:



**US Army Corps
of Engineers**®
Sacramento District



**Sacramento
Area Flood
Control
Agency**



November 4, 2010

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Lead Agencies:

U.S. Army Corps of Engineers, Sacramento District
1325 J Street
Sacramento, CA 95814
Contact: Elizabeth Holland
Planning Division
(916) 557-6763

Sacramento Area Flood Control Agency
1007 7th Street, 7th Floor
Sacramento, CA 95814
Contact: John Bassett, P.E.
Director of Engineering
(916) 874-7606

Cooperating Agency:

Federal Aviation Administration
Western-Pacific Region - San Francisco, California -
Airport District Office
831 Mitten Road, Room 210
Burlingame, CA 94010
Contact: Douglas Pomeroy
Environmental Protection Specialist/Biologist
(650) 876-2778 ext. 612

Non-Federal Sponsor:

State of California – The Resources Agency
Central Valley Flood Protection Board
3310 El Camino Ave., Rm. L140
Sacramento, CA 95821
Contact: Dan Fua
Supervising Engineer
(916) 574-0698

Prepared by:

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
Contact: Francine Dunn
EIS/EIR Project Manager
(916) 414-5800

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ACRONYMS AND ABBREVIATIONS

ALUCP	<i>Sacramento International Airport Land Use Compatibility Plan</i>
APN	Assessor's Parcel Number
AST	aboveground storage tank
APE	area of potential effect
ARB	California Air Resources Board
BMP	best management practices
Cal/OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Common Features GRR	American River Watershed Common Features Project General Re-evaluation Report
Common Features/Natomas PACR	USACE's American River Watershed Common Features Project/Natomas Post-authorization Change Report
CRHR	California Register of Historical Resources
CVFPB	Central Valley Flood Protection Board
CWA	Clean Water Act
DFG	California Department of Fish and Game
DOC	California Department of Conservation
DTSC	California Department of Toxic Substances Control
DPF	diesel particulate filters
EIR	environmental impact report
EIS	environmental impact statement
EPA	U.S. Environmental Protection Agency
ESA	Federal Endangered Species Act
FAA	Federal Aviation Administration
FRAQMD	Feather River Air Quality Management District
HAER	Historic American Engineering Record
HEPA	high-efficiency particulate air
hp	horsepower
HPTP	Historic Property Treatment Plan
LTMP	Long-Term Management Plan
MLD	most likely descendent
MMP	Mitigation and Monitoring Plan
MMRP	Mitigation Monitoring and Reporting Program
NBHCP	Natomas Basin Habitat Conservation Plan
NAHC	Native American Heritage Commission
NCC	Natomas Cross Canal
NCMWC	Natomas Central Mutual Water Company

NEMDC	Natomas East Main Drainage Canal
NEPA	National Environmental Policy Act
NLIP	Natomas Levee Improvement Program
NMFS	National Marine Fisheries Service
NOI	Notice of Intent
NOS	Particulate Not Otherwise Specified
NO _x	oxides of nitrogen
NRHP	National Register of Historic Places
NPDES	National Pollutant Discharge Elimination System
OHWM	ordinary high water mark
PA	Programmatic Agreement
PACR	Post-authorization change report
PCB	polychlorinated biphenyl
PGCC	Pleasant Grove Creek Canal
Phase 4b Project	Phase 4b Landside Improvements Project
PM ₁₀	respirable particulate matter less than 10 microns in diameter
PRC	Public Resources Code
RD	Reclamation District
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SacDOT	Sacramento County Department of Transportation
SAFCA	Sacramento Area Flood Control Agency
SCAS	Sacramento County Airport System
SHPO	State Historic Preservation Officer
SMUD	Sacramento Municipal Utility District
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMARA	California Surface Mining and Reclamation Act
SR	State Route
SRA	shaded riverine aquatic
SWPPP	Stormwater Pollution Prevention Plan
TNBC	The Natomas Basin Conservancy
TPY	tons per year
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
UST	underground storage tanks
WHMP	Wildlife Hazard Management Plan

MITIGATION MONITORING AND REPORTING PROGRAM

The U.S. Army Corps of Engineers (USACE), Sacramento District and the Sacramento Area Flood Control Agency (SAFCA) prepared an environmental impact statement/environmental impact report (EIS/EIR) in accordance with the requirements of the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA), respectively. The EIS/EIR evaluates the potential significant environmental impacts of the Natomas Levee Improvement Program (NLIP), Phase 4b Landside Improvements Project (Phase 4b Project), and will be submitted to Congress in late 2010 to support approval of USACE's American River Watershed Common Features Project/Natomas Post-authorization Change Report (Common Features/Natomas PACR), which is an element of the American River Watershed Common Features Project General Re-evaluation Report (Common Features GRR). If the Common Features/Natomas PACR is authorized by Congress, USACE would implement the Phase 4b Project. In the event that USACE does not receive authorization to construct the Phase 4b Project, SAFCA could choose to implement the Phase 4b Project.¹

The EIS/EIR concludes that implementation of the Phase 4b Project would generate significant adverse environmental impacts to the physical environment. For most potential impacts, the EIS/EIR prescribes mitigation feasible of reducing these impacts to less-than-significant levels.

Section 21081.6 of the California Public Resources Code requires a public agency to adopt a reporting or monitoring program for changes to the project that it has adopted and incorporated into the project, at the time of approval, in order to mitigate, minimize, or avoid significant effects on the physical environment. These conditions are also referred to as mitigation measures.

This Mitigation Monitoring and Reporting Program (MMRP) is to be used by the project proponent(s) to ensure that adopted mitigation measures identified in the EIS/EIR are implemented and that implementation is documented. The MMRP is presented in tabular format. The table columns contain the following information:

Mitigation Number: Lists the mitigation measures by number, as designated in the EIS/EIR, by issue area.

Mitigation Measure: Provides the text of the mitigation measures (by issue area), as provided in the EIS/EIR, each of which has been adopted and incorporated into the project.

Timing/Schedule: Lists the time frame in which the mitigation is expected to take place.

Implementation Responsibility: Identifies the entity responsible for complying with the requirements and conditions of the mitigation measure.

Completion of Implementation: The project proponent(s) are responsible for reporting on implementation of the mitigation measures. The "Action" column is to be used by the project proponent(s) to describe the action(s) taken to complete implementation. The "Date Completed" column is to be used by the project proponent(s) to indicate when implementation of the mitigation measure has been completed. The project proponent(s), at their discretion, may delegate implementation responsibility or portions thereof to qualified consultants or contractors. However, the project proponent(s) still maintain overall responsibility for implementation of mitigation adopted or incorporated into the project.

¹ The EIS/EIR and this MMRP use the term "project proponent(s)" to account for the possibility that either USACE or SAFCA would implement the Phase 4b Project (see above explanation), and, thus, would be responsible for implementing the mitigation measures contained herein.

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
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Agricultural Resources					
4.2-a	Minimize Important Farmland Conversion to the Extent Practicable and Feasible				
	(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.	During project design and before construction	Project proponent(s)		
	(b) To the extent practicable and feasible, when expanding the footprint of a flood risk 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. The project proponent(s) shall implement all terms and conditions of agreements.	Before and during construction	Project proponent(s)		
	(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.	During construction	Project proponent(s)		
	(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.	During construction	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
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	(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.	During project design and before construction	Project proponent(s)		
4.2-b	<p>Minimize Impacts on Agricultural Preserve Land and Williamson Act–Contracted Land; Comply with California Government Code Sections 51290–51293; and Coordinate with Landowners and Agricultural Operators</p> <p>(a) The project proponent(s) shall comply with California Government Code Sections 51290–51295 with regard to acquisition of Williamson Act contracted lands as follows:</p> <ul style="list-style-type: none"> ▶ 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 (California Government Code Section 51290[a][b]). More specifically, the basic requirements are: <ul style="list-style-type: none"> • 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 (California 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 (California Government Code Section 51291[b]). ▶ The contract shall be terminated when land is acquired by eminent domain or in lieu of eminent domain (California Government Code Section 51295). 	Before and during construction	Project proponent(s)		

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	<ul style="list-style-type: none"> ▶ DOC and the city or county shall be notified before project completion of any proposed substantial changes to the public improvement (California Government Code Section 51291[d]). ▶ DOC shall be notified within 10 working days upon completion of the acquisition (California Government Code 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 (California Government Code Section 51295). 				
	(b) The project proponent(s) 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.	Before construction	Project proponent(s)		
	(c) Properties that were under Williamson Act contract prior to conversion for borrow use and that are owned or acquired by the project proponent(s) shall be reenrolled under Williamson Act contract upon reclamation to agricultural use.	Upon reclamation of borrow sites	Project proponent(s)		
Land Use, Socioeconomics, and Population and Housing					
4.3-a	Implement Mitigation Measure 4.16-g, "Consult with SCAS and the FAA during Design of the Proposed Natomas Levee Class I Bike Trail to Implement Appropriate Airport Safety Precautions"				

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	The Sacramento County Department of Transportation (SacDOT), Sutter County, and the City of Sacramento shall consult with the Sacramento County Airport System (SCAS) and the Federal Aviation Administration (FAA) to ensure that the alignment of the Natomas Levee Class I Bike Trail is compatible with the Airport Master Plan and the <i>Sacramento International Airport Land Use Compatibility Plan</i> (ALUCP), and that applicable regulations and safety precautions are considered and built into construction of the proposed Natomas Levee Class I Bike Trail. These safety precautions shall include project elements that would reduce opportunities for hazards to the Airport and the public, and may include features such as fencing, increased security personnel, and special consideration of alignment and parking areas near the Airport. The Natomas Levee Class I Bike Trail shall not be opened for use until these elements are completed.	Before the start of construction of the proposed Natomas Levee Class I Bike Trail	SacDOT, Sutter County, and the City of Sacramento		
4.3-b	Implement Mitigation Measure 4.7-1, “Ensure that Project Encroachment Does Not Jeopardize Successful Implementation of the NBHCP and Implement Mitigation Measures 4.7-a and 4.7-c through 4.7-h” Implement Mitigation Measure 4.7-1	See Mitigation Measure 4.7-1	See Mitigation Measure 4.7-1		
4.3-d	Notify Residents and Businesses of Project Construction and Road Closure Schedules; and Implement Mitigation Measure 4.10-a, “Prepare and Implement a Traffic Safety and Control Plan for Construction-Related Truck Trips” Implement Mitigation Measure 4.10-a	See Mitigation Measure 4.10-a	See Mitigation Measure 4.10-a		

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	a) Provide residents and business owners located adjacent to the construction areas with information regarding construction activities (including road closures, detour information, contact information, and complaint procedures) and a construction timeline, and post the construction schedule on the project proponent's Web site. The schedule shall be updated on a regular basis.	Before and during construction	Project proponent(s) and their primary contractors for engineering design and construction or public outreach representatives		
	b) Apply the following measures to power line relocations: To the extent that the main electrical power transmission lines and poles serving 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. The project proponent(s) will avoid placing utilities on the waterside of the Garden Highway levee, where feasible. Consistent with sound engineering practices that prioritize the following, individual services shall: (1) use existing configurations and facilities, and (2) place any new poles on the landside of Garden Highway, subject to the approval of the Central Valley Flood Protection Board (CVFPB) and any other relevant regulatory public agencies and utility companies. USACE would also need to approve the implementation of this measure if SAFCA implements the project.	Before and during construction	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
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	<p>c) Implement the following measures before and during construction:</p> <p>Project Implementation by either USACE or SAFCA</p> <ul style="list-style-type: none"> ▶ 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. The project proponent(s) shall post the construction schedule for the project on the project proponent’s Web site. The schedule shall be updated on a monthly basis. In addition, the project proponent(s) shall post a “60-day notice” of planned construction on the project proponent’s 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, the project proponent(s) shall provide whatever notice is possible under the circumstances to affected, adjacent landowners prior to any emergency or remedial work. 	Before and during construction	Project proponent(s)		
	<p>Project Implementation by USACE</p> <ul style="list-style-type: none"> ▶ USACE shall 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 project proponent 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. 	Conduct inspections before the start of construction within the specified reach of the Sacramento River east levee where project construction will commence	USACE		
	<ul style="list-style-type: none"> ▶ USACE shall require the contractor(s) to follow the construction specifications, which will include all USACE safety regulations. 	During construction	USACE		

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	<p>Project Implementation by SAFCA</p> <ul style="list-style-type: none"> SAFCA shall give property owners within the project area an informational package advising the property owners that pre-project inspections of their properties are important and that project proponent 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. 	Before construction	SAFCA		
	<ul style="list-style-type: none"> 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. 	Before and after construction	SAFCA		
	<ul style="list-style-type: none"> SAFCA shall cooperate with a construction monitoring committee established by local residents and businesses to resolve reasonable complaints regarding the project proponent’s or its contractors’ construction activities in accordance with this provision. A complaint procedure and hierarchy shall be developed by the committee and the project proponent’s Ombudsperson in time to be included in the informational packet referenced in subsection (i), above. In addition, the information packet shall include project proponent’s instructions to its contractors regarding appropriate use of Garden Highway. The project proponent(s) shall resolve all complaints pertaining to dangerous activities immediately, and shall resolve all other reasonable complaints in an expeditious manner. 	During construction	SAFCA		

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	<ul style="list-style-type: none"> ▶ SAFCA shall prohibit the use of earth-moving equipment or haul trucks on Garden Highway in conjunction with project construction to the extent feasible. 	During construction	SAFCA		
	d) Where a property owner occupies a residence on property to be acquired for the project, SAFCA, as the local sponsor, shall allow up to 12 months, rather than 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.	Allow up to 12 months (from the first written offer) for property owners to relocate	SAFCA		
	e) Provide notice as feasible for emergency construction or remedial construction.	Before and during construction activities	Project proponent(s)		
	f) Provide assistance for residents and businesses that are required to relocate during the construction period. The project proponent(s) shall compensate residents for reasonable rent and living expenses incurred due to relocation. Residents will have the right to decent, safe, and sanitary housing in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act.	During construction	Project proponent(s)		
	g) Provide 24-hour security patrols for residences and businesses that must be vacated during the construction period.	During construction	Project proponent(s)		
Geology, Soils, and Mineral Resources					
4.4-a(1)	<p>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”</p> <p>Implement Mitigation Measure 4.6-a</p>	See Mitigation Measure 4.6-a	See Mitigation Measure 4.6-a		

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4.4-a(2)	<p>Secure and Implement the Conditions of the California Surface Mining and Reclamation Act Permit or Exemption</p> <p>In the event that any activity is defined as surface mining (under Public Resources Code [PRC] Section 2735, 14 California Code of Regulations Section 3501) and determined to be subject to the California Surface Mining and Reclamation Act (SMARA) (PRC Section 2714), the project proponent(s) shall either seek an exemption or secure, and implement the conditions contained in the SMARA permit as administered and issued by the local agency (applicable county).</p>	Secure SMARA permit or exemption before construction (if needed); implement SMARA conditions during construction	Project proponent(s)		
Hydrology and Hydraulics					
4.5-b(1)	Coordinate with Landowners and Drainage Infrastructure Operators, Prepare Final Drainage Studies as Needed, and Implement Proper Project Design				

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	<p>During project design, the project proponent’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 to prevent any substantial project-related 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 to identify alternative means to provide equivalent irrigation and drainage services that would be 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. 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 the project proponent(s) before commencement of any earth-moving activities.</p>	<p>Coordinate with owners and operators of local drainage systems and landowners served by the systems during project design; prepare drainage study during project design; construct features to remediate project-induced drainage issues during construction; and coordination with landowners and drainage infrastructure operators before commencement of any earth-moving activities</p>	<p>Project proponent(s) and their primary contractors for engineering design and construction</p>		
4.5-b(2)	<p>Prepare Hydraulic Study, and Design and Implement Lower Dry Creek Woodland Planting Areas to Avoid Adverse Hydraulic Effects</p> <p>During project design, the project proponent(s) shall conduct a hydraulic analysis of the Lower Dry Creek Drainage. Woodlands shall only be planted in areas determined by the hydraulic analysis to have no adverse effects on the function of the drainage to provide flood services or otherwise contribute to local flooding in the surrounding areas.</p>	<p>During project design</p>	<p>Project proponent(s)</p>		

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Water Quality					
4.6-a	<p>Implement Standard Best Management Practices, Prepare and Implement a Stormwater Pollution Prevention Plan, and Comply with National Pollutant Discharge Elimination System Permit Conditions</p> <p>The project proponent(s) shall file a Notice of Intent (NOI) to discharge stormwater associated with construction activity with the Central Valley Regional Water Quality Control Board (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 (Order No. 2009-0009-DWQ). 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.</p> <p>The SWPPP shall include the following:</p> <ul style="list-style-type: none"> ▶ 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. 	Prepare NOI and SWPPP before start of construction; implement SWPPP and SMPs during construction; and monitor effectiveness of measures during and at completion of construction	Project proponent(s) and their primary contractors for engineering design and construction		

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	<p>BMPs shall include the following:</p> <ul style="list-style-type: none"> ▶ 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. <p>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:</p> <ul style="list-style-type: none"> ▶ 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; 				

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	<ul style="list-style-type: none"> ▶ 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, American River, the Natomas East Main Drainage Canal (NEMDC), or the Natomas Cross Canal (NCC); and ▶ immediately notify the California Department of Fish and Game (DFG) and the Central Valley RWQCB of any spills and cleanup procedures. <p>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.</p> <p>The project proponent(s) shall also file an NOI to discharge construction wastewater from dewatering operations with the Central Valley RWQCB. Construction contractors shall be required to comply with the conditions of the general NPDES permit for construction dewatering and other low threat discharges to surface waters (Order No. R5-2008-0081).</p> <p>The project proponent(s) shall demonstrate compliance with applicable City of Sacramento stormwater management and erosion control regulations:</p> <ul style="list-style-type: none"> ▶ The City’s Grading, Erosion, and Sediment Control Ordinance (Title 15, Chapter 15.88 of the City Code), which includes preparing erosion, sediment, and pollution control plans for each construction phase and postconstruction, if necessary. The project’s grading plans shall be approved by the City of Sacramento Utilities Department. 				

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	<ul style="list-style-type: none"> ▶ The City's Stormwater Management and Discharge Control Code (Chapter 13.16 of the City Code), which regulates stormwater and prohibits nonstormwater discharges except where regulated by a NPDES permit. 				
4.6-b	<p>Implement Best Management Practices and Comply with NPDES Permit Conditions for a Point-Source Discharge</p> <p>Prior to operation of the detention basin pumping stations for discharge of water into the Pleasant Grove Creek Canal (PGCC) (and ultimately the Sacramento River), the project proponent(s) shall file a report of waste discharge with the Central Valley RWQCB and comply with NPDES permit conditions for a point-source discharge.</p>	File report of waste discharge prior to operation of the detention basin pumping stations; implement BMPs during construction; and monitor effectiveness of BMPs during and at completion of construction	Project proponent(s)		
4.6-c	<p>Conduct Groundwater Quality Tests, Notify the Central Valley RWQCB, and Comply with the Central Valley RWQCB's Waste Discharge Requirements and NPDES Permit</p> <p>The project proponent(s), in coordination with Reclamation District (RD) 1000, shall ensure that groundwater in the vicinity of potential relief well locations near the Sacramento River east levee 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. The project proponent(s) 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.</p>	During project design and before well construction	Project proponent(s) in coordination with RD 1000		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
Biological Resources					
4.7-a	<p>Minimize Effects on Woodland Habitat; Implement Woodland Habitat Improvements and Management Agreements; Compensate for Loss of Habitat; and Comply with Section 7 of the Federal Endangered Species Act, Section 2081 of the California Endangered Species Act, and Section 1602 of the California Fish and Game Code</p> <ul style="list-style-type: none"> Native woodland areas shall be identified and the primary engineering and construction contractors shall ensure, through coordination with a qualified biologist retained by the project proponent(s), 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. 	Before and during construction	Project proponent(s) and their primary construction contractor(s) in coordination with a qualified biologist		
	<ul style="list-style-type: none"> The project proponent(s) shall coordinate with the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), DFG, and SCAS (if on Airport property) to ensure that all woodland habitat improvements of the NLIP are created and managed. The project proponent(s) 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. The project proponent(s) 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 criteria 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 criteria and long-term management goals will be in full compliance with the Endangered Species Act (ESA) 	Coordinate with USFWS, NMFS, DFG, and SCAS before, during, and after construction; and implement MMP and LTMP as specified	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	and California Endangered Species Act (CESA). The project proponent(s) shall implement all terms and conditions of the agreements.				
	<ul style="list-style-type: none"> Waterside riparian woodland along the Sacramento River, American River (e.g., Lower American River Mile 0.5 mitigation site), and NEMDC 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 the project proponent(s), 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. 	During project design and construction	Project proponent(s) and their primary engineering and construction contractors		
	<ul style="list-style-type: none"> Waterside riparian forest and scrub (canopy acreage) shall be replaced using ratios established by NMFS. Mitigation shall be 1:1 for in-kind mitigation and 3:1 for out-of-kind mitigation. For example, if waterside removal of vegetation occurs on the lower portion of the levee slope below the ordinary high water mark (OHWM) and mitigation planting sites are only available above the levee bench hinge (located at the top of the lower slope), then mitigation shall increase to 3:1. 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. The project proponent(s) 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 and implemented to determine the progress of the woodland habitats towards providing adequate mitigation. 	Develop woodland planting design and management protocols as well as a monitoring plan during project design; and implement plans during construction	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> ▶ 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: <ul style="list-style-type: none"> • percent survival of planted trees (from 65–85%), • percent survival of transplanted trees (from 60–85%), and • percent relative canopy cover (from 5–35%). 	Consult with USFWS, NMFS, and DFG before the start of habitat improvements	Project proponent(s)		
	<ul style="list-style-type: none"> ▶ The project proponent(s) shall also enter into agreements with entities responsible for long-term management of created SRA habitats to ensure that performance criteria and long-term management goals are met. The project proponent(s) shall provide assurances for habitat creation and management goals that are required by regulatory agencies with jurisdiction over these resources, and these assurances will be specifically detailed and outlined in the LTMP and MMP. Such agreements shall be coordinated with USFWS, NMFS, and DFG. The project proponent(s) shall implement all terms and conditions of the agreements. 	Before end of construction	Project proponent(s)		
	<ul style="list-style-type: none"> ▶ If SRA mitigation requirements cannot be met through restoration on-site, credits shall be purchased at a mitigation bank approved by the resource agencies (e.g., USFWS, NMFS, and DFG) for selling SRA credits. 	Once accurate construction impacts are known, consult with USFWS, NMFS, and DFG before credits are purchased	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> ▶ A Section 1602 Streambed Alteration Agreement from DFG shall be obtained before any trees within a stream zone under DFG jurisdiction are removed. The project proponent(s) 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. 	Consult with DFG and comply with Section 1602, as needed, before any waterside ground disturbance	Project proponent(s)		
	<ul style="list-style-type: none"> ▶ USACE shall initiate Section 7 consultation with NMFS under Section 7 of the Federal ESA, and the project proponent(s) 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. The project proponent(s) 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. 	Obtain take authorization before construction; and implement measures developed through the ESA and CESA consultation process as specified	Project proponent(s)		
4.7-b	<p>Implement Mitigation Measures 4.7-a, “Minimize Effects on Woodland Habitat; Implement Woodland Habitat Improvements and Management Agreements; Compensate for Loss of Habitat; and Comply with Section 7 of the Federal Endangered Species Act, Section 2081 of the California Endangered Species Act, and Section 1602 of the California Fish and Game Code,” and 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”</p> <p>Implement Mitigation Measures 4.7-a and 4.7-e.</p>	See Mitigation Measures 4.7-a and 4.7-e	See Mitigation Measures 4.7-a and 4.7-e		
4.7-c	<p>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 or Dewatered; and Comply with Section 404, Section 401, Section 10, and Section 1602 Permit Processes</p>				

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> ▶ 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. 	During project design and construction	Project proponent(s) and their primary engineering and construction contractors		
	<ul style="list-style-type: none"> ▶ 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/vernal pool 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 or USACE internal equivalent process. Features planned in the Phase 4b 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 West Drainage Canal; creation of managed marsh at the Brookfield borrow site; and creation of managed marsh at Fisherman's Lake, which was included as part of the Phase 4a Project and analyzed in the Phase 4a EIS and EIR. Most acreage associated with the relocated West Drainage Canal, the managed marsh habitat at the Brookfield borrow site, and at Fisherman's Lake would meet the criteria for waters of the United States, including wetlands. 	During construction	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<p>Develop and implement an MMP and LTMP in coordination with and subject to approval of USACE (only if SAFCA implements the Phase 4b Project), USFWS, and DFG. The MMP and LTMP shall provide complete detailed designs of habitat creation components, performance criteria, and management protocols. The project proponent(s) shall also enter into agreements with entities responsible for long-term management of created canals and marsh habitats to ensure that performance criteria 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 criteria and long-term management goals will be in full compliance with ESA and CESA.</p> <p>The project proponent(s) shall secure all such agreements and implement all conditions of the agreements as follows: obtain the following applicable permits before the start of construction activities that would affect the resources covered by these permits: an individual permit pursuant to Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act from USACE (if the Phase 4b Project is implemented by SAFCA), Section 401 certification from the Central Valley RWQCB, and a Section 1602 Streambed Alteration Agreement from DFG (which applies to either USACE or SAFCA). All requirements of these permitting processes shall be implemented by the project proponent(s), as identified above.</p>	Develop MMP and LTMP before start of construction; secure all agreements and permits before start of construction; and implement all conditions of the agreements and permits during construction	Project proponent(s)		
4.7-d	<p>Minimize Impacts on Special-Status Plant Species</p> <ul style="list-style-type: none"> ▶ Areas that have the potential to support special-status plant species shall be surveyed by a qualified botanist. To identify special-status species in accordance with DFG and California Native Plant Society (CNPS) protocol, the focused rare plant survey shall be conducted during the appropriate time of year when the target species would be clearly identifiable. If no evidence of special-status plants is found in the survey area, no further mitigation is necessary. 	Conduct focused rare plant survey before construction and during the appropriate time of year when the target species would be clearly identifiable	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> If special-status plants are found, information on the special-status plant populations shall be recorded in the field on California Natural Diversity Database (CNDDDB) data forms. These forms shall be submitted to the CNDDDB upon completion of the survey. If the populations can be avoided, they shall be clearly marked in the field by a qualified botanist for avoidance during construction activities. If special-status plant populations cannot be avoided, consultations with USFWS and/or DFG may be required depending on the listing status of the species present. These consultations shall determine appropriate mitigation measures for any special-status species populations that would be affected by the implementation of the project. Appropriate measures may include the creation of off-site populations through seed collection or transplanting, preservation and enhancement of existing populations, or restoration or creation of suitable habitat in sufficient quantities to compensate for the impact. Performance criteria would include replacement ratios and rate of survival for replacement populations designed to achieve no net loss of the special-status plant population. The project proponent(s) shall implement all mitigation measures determined necessary during this consultation. 	Submit CNDDDB data forms to the CNDDDB upon completion of the survey; and consult with USFWS and/or DFG, if required, before construction	Project proponent(s)		
4.7-e	<p>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</p> <ul style="list-style-type: none"> The primary engineering and construction contractors shall ensure, through coordination with a qualified biologist retained by the project proponent(s), 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). 	Establish protective measures during project design and before any project construction-related ground disturbance	Project proponent(s) and their primary engineering and construction contractors		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> ▶ Additional measures consistent with the goals and objectives of the Natomas Basin Habitat Conservation Plan (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 pre-construction 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 <i>Guidelines for the Restoration and/or Replacement of Giant Garter Snake Habitat</i> (USFWS 1997). 	Implement measures before and during construction	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> The project proponent(s) 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. The project proponent(s) shall prepare a project-specific MMP and programmatic LTMP to ensure the creation and long-term management of these components before construction commences. The project proponent(s) 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 criteria 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 criteria and long-term management goals will be in full compliance with ESA and CESA. The project proponent(s) shall implement all terms and conditions of the management agreements. 	Coordinate with USFWS, DFG, and SCAS; develop MMP and LTMP and submit to USFWS and DFG for approval; and enter into agreements before start of construction	Project proponent(s)		
	<ul style="list-style-type: none"> 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 before the loss of existing habitat. 	Before and during construction	Project proponent(s)		
	<ul style="list-style-type: none"> 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. 	Obtain take authorization under the Federal ESA and CESA, if required, before the start of construction; and implement measures as specified	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
4.7-f	<p>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; and Implement Mitigation Measure 4.7-a, “Minimize Effects on Woodland Habitat; Implement Woodland Habitat Improvements and Management Agreements; Compensate for Loss of Habitat; and Comply with Section 7 of the Federal Endangered Species Act, Section 2081 of the California Endangered Species Act, and Section 1602 of the California Fish and Game Code”</p> <ul style="list-style-type: none"> ▶ The primary engineering and construction contractors shall ensure, through coordination with a qualified biologist retained by the project proponent(s), that construction is implemented in a manner that minimizes disturbance of potential nesting habitat for special-status birds through the following activities: <ul style="list-style-type: none"> • The biologist shall conduct preconstruction surveys to identify active special-status bird nests near construction areas. 	Before construction	Project proponent(s) and their primary engineering and construction contractors		
				<ul style="list-style-type: none"> • 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. 	Before project activities are initiated during the nesting season (March 1–September 15)

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> 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. 	During the non-nesting season, to the extent feasible and practicable	Project proponent(s) and their primary engineering and construction contractors		
	<ul style="list-style-type: none"> 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. 	Establish buffer before start of construction; and monitor nests during construction	Project proponent(s) and their primary engineering and construction contractors		
	<ul style="list-style-type: none"> The primary engineering and construction contractors shall ensure, through coordination with a qualified biologist retained by the project proponent(s), that staging areas and access routes are designed to minimize disturbance of known Swainson's hawk nesting territories through the following activities: <ul style="list-style-type: none"> The biologist shall conduct pre-construction 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 <i>Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley</i> (Swainson's Hawk Technical Advisory Committee 2000). 	Before construction	Project proponent(s) and their primary engineering and construction contractors		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> 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. 	Establish buffer before start of construction; and monitor nests during construction	Project proponent(s) and their primary engineering and construction contractors		
	<ul style="list-style-type: none"> The project proponent(s) shall coordinate with USFWS and DFG to ensure that the NLIP's woodland, upland, and agricultural habitat improvements are created and managed. SAFCA, in consultation with USACE, shall prepare a project-specific MMP and programmatic LTMP to ensure the creation and long-term management of these components before construction commences. SAFCA, in consultation with USACE, 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 criteria 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 LTMP and MMP. All performance criteria and long-term management goals will be in full compliance with ESA and CESA. SAFCA, in consultation with USACE, shall implement all terms and conditions of the management agreements. 	Coordinate with USFWS and DFG; develop MMP and LTMP and submit to USFWS and DFG for approval; and enter into agreements before start of construction	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
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	<ul style="list-style-type: none"> ▶ 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 by SAFCA in consultation with USACE, USFWS, NMFS, and DFG, and shall include, but not be limited to: <ul style="list-style-type: none"> • percent cover of invasive species (<1%), • percent cover of nonnative herbaceous plants (<10–25%), and • percent absolute cover of native species (>50–80%). 	Consult with USFWS, NMFS, and DFG before start of habitat improvements	Project proponent(s)		
	<ul style="list-style-type: none"> ▶ Authorization for take of Swainson’s hawk under CESA shall be obtained. All measures subsequently adopted through the permitting process shall be implemented. 	Obtain take authorization under CESA, if required, before start of construction; and implement measures as specified	Project proponent(s)		
	<ul style="list-style-type: none"> ▶ Implement Mitigation Measure 4.7-a 	See Mitigation Measure 4.7-a	See Mitigation Measure 4.7-a		
4.7-g	<p>Conduct Focused Surveys for Elderberry Shrubs as Needed, Implement All Woodland Habitat Improvements and All Management Agreements, Ensure Adequate Compensation for Loss of Shrubs, and Obtain Incidental Take Authorization</p> <ul style="list-style-type: none"> ▶ A qualified biologist retained by the project proponent(s) 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. 	Conduct surveys before start of any ground-disturbing activities	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> The primary engineering and 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. 	Minimize disturbance of areas that support elderberry shrubs during construction; and transplant shrubs, if required, when the plants are dormant (November through the first 2 weeks of February)	Project proponent(s) and their primary engineering and construction contractors		
	<ul style="list-style-type: none"> 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. 	Coordinate with USFWS to determine replacement ratios before construction	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
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	<ul style="list-style-type: none"> The project proponent(s) shall coordinate with USFWS, DFG, and SCAS (if on Airport property) to ensure that the NLIP's woodland habitat improvements are created and managed. The project proponent(s) shall prepare a project-specific MMP and programmatic LTMP to ensure the creation and long-term management of these components before construction commences. The project proponent(s) 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 criteria 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 criteria and long-term management goals will be in full compliance with the ESA and CESA. The project proponent(s) 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 the project proponent(s). 	Before start of construction	Project proponent(s)		
4.7-h	Conduct Focused Surveys for Northwestern Pond Turtles and Burrowing Owls, Relocate Northwestern Pond Turtles as Needed, Minimize Potential Impacts on Burrowing Owls, and Relocate Burrowing Owls as Needed				

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> A qualified biologist retained by the project proponent(s) 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 the project. 	Conduct focused surveys immediately after dewatering and before fill of suitable aquatic habitat	Project proponent(s)		
	<ul style="list-style-type: none"> The primary engineering and construction contractors shall ensure, through coordination with a qualified biologist retained by the project proponent(s), 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). 	Minimize disturbance of potential nesting habitat during construction	Project proponent(s) and their primary engineering and construction contractors		
	<ul style="list-style-type: none"> The biologist shall conduct pre-construction 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 <i>Staff Report on Burrowing Owl Mitigation</i> (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. 	Conduct focused surveys before construction; establish buffer, if required, before construction; and monitor burrows during construction	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> If an occupied burrowing owl burrow that does not support an active nest is found, the project proponent(s) 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 <i>Staff Report on Burrowing Owl Mitigation</i> (DFG 1995) and the <i>Airport Wildlife Hazard Management Plan</i> (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. 	Before or during construction and, per the DFG Staff Report, relocation of burrowing owls may only occur during December and January	Project proponent(s)		
4.7-i	<p>Survey for Presence or Absence of Vernal Pool Invertebrates, Avoid Disrupting Vernal Pool Habitat, and Implement Measures to Mitigate Loss of Habitat</p> <ul style="list-style-type: none"> Ground disturbance within 250 feet of seasonal wetland habitat shall be avoided to the extent feasible and practicable. The 250-foot buffers shall be clearly identified by staking or flagging. All project activity shall be prohibited within the buffer areas. If maintenance of these buffers is not feasible, or if changes in drainage associated with project implementation are projected to result in the loss or degradation of seasonal wetlands, additional mitigation shall be required as described below. 	During construction	Project proponent(s) and their primary engineering and construction contractors		
	<ul style="list-style-type: none"> USACE shall initiate Section 7 consultation with USFWS under Section 7 of the ESA, and the project proponent(s) shall consult with DFG under CESA regarding potential construction-related impacts to Federally listed vernal pool crustaceans and state-listed vernal pool crustaceans, respectively. The project proponent(s) shall implement any additional measures developed through the ESA Section 7 and CESA consultation processes to ensure that impacts are avoided and/or minimized. 	Consult with USFWS and DFG before construction; and implement measures as specified	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> ▶ If loss or alteration of potential habitat is determined to be unavoidable, appropriate survey measures to determine the presence or absence of vernal pool crustaceans shall be conducted. A complete survey for vernal pool crustaceans consists of sampling for either two full wet season surveys done within a 5-year period, or two consecutive seasons of one full wet season survey and one dry season survey (or one dry season survey and one full wet season survey) (USFWS 1996). Wet season surveys must begin no later than 2 weeks after the initial inundation of seasonal wetland habitat, and must be adequately sampled once every 2 weeks until the habitat is no longer inundated, or until the habitat has experienced 120 days of continuous inundation. Dry season surveys require the collection of 10 soil samples after pools have dried. Surveys need to be conducted by a qualified biologist holding the required permits. 	Before construction	Project proponent(s)		
	<ul style="list-style-type: none"> ▶ If no endangered vernal pool crustaceans are found, a letter report documenting survey methods and findings shall be submitted to USFWS, and no further mitigation is necessary. Should the presence of either vernal pool tadpole shrimp or vernal pool fairy shrimp be confirmed, consultation with USFWS will be required, and an incidental take permit may be required. During this consultation, an appropriate and feasible mitigation plan shall be developed and provided to USFWS for approval. The plan shall include, but would not necessarily be limited to, the preservation and creation of habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp. 	Before construction	Project proponent(s)		
	<ul style="list-style-type: none"> ▶ Alternatively, if loss or alteration of potential habitat is determined to be unavoidable, the project proponent(s) may elect to assume presence in the vernal pools rather than sampling for special-status vernal pool crustaceans and mitigate for loss of the species at a USFWS approved mitigation bank at a minimum ratio of 2:1. The mitigation ratio that is ultimately required will be determined by USFWS through the Section 7 ESA process. 	Before construction	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> ▶ Vernal pool complexes on the Triangle Properties Borrow Area shall not be used for borrow material. 	During construction	Project proponent(s)		
4.7-j	<p>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;” 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</p> <ul style="list-style-type: none"> ▶ Implement Mitigation Measure 4.6-a 	See Mitigation Measure 4.6-a	See Mitigation Measure 4.6-a		
	<ul style="list-style-type: none"> ▶ The project proponent(s) shall identify and implement feasible in-water construction work windows in consultation with NMFS 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 1). 	Time in-water work windows to occur July 1–October 1	Project proponent(s)		
	<ul style="list-style-type: none"> ▶ USACE shall initiate Section 7 consultation with NMFS under Section 7 of the ESA, and the project proponent(s) shall consult with DFG under CESA regarding potential construction-related impacts to Federally listed fish species and state-listed fish species, respectively. The project proponent(s) 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. 	Consult with NMFS and DFG before construction; and implement measures as specified	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> ▶ The cofferdam sheetpiles at the outfall structure construction sites shall be installed using a vibratory hammer when possible to minimize underwater sound pressure levels to the greatest extent feasible and associated effects to sensitive fish species. Vibratory hammers/pile drivers 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 or pile driver would be required for installing the cofferdam or pilings, 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. 	During construction	Project proponent(s) and their primary engineering and construction contractors		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> To reduce the potential for fish stranding or minimize the potential for harm during cofferdam dewatering activities, the project proponent(s) 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) will 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 shall 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, NCC, PGCC, or NEMDC water (depending on the location of the construction activity), transported downstream of the construction area, and released back into suitable habitat in the Sacramento River, NCC, PGCC, or NEMDC (depending on the location of the construction activity) 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. 	During cofferdam dewatering activities	Project proponent(s) and their primary engineering and construction contractors		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
4.7-1	Ensure that Project Encroachment Does Not Jeopardize Successful Implementation of the NBHCP and Implement Mitigation Measures 4.7-a and 4.7-c through 4.7-h				
	<ul style="list-style-type: none"> Implement Mitigation Measures 4.7-a and 4.7-c through 4.7-h. 	See Mitigation Measures 4.7-a and 4.7-c through 4.7-h	See Mitigation Measures 4.7-a and 4.7-c through 4.7-h		
	<ul style="list-style-type: none"> Based on the current value-per-acre, the project proponent(s) 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. 	Before disturbance of TNBC land	Project proponent(s)		
Cultural Resources					
4.8-a	<p>Incorporate Mitigation Measures to Documents Regarding any Elements Contributing to RD 1000 and the Rural Landscape District and Distribute the Information to the Appropriate Repositories</p> <p>The management of the cultural resources that constitute the contributing elements of RD 1000 is governed by the Programmatic Agreement (PA). 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 area of potential effect (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.</p>	Before any project activity that would result in adverse effects	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<p>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 Historic American Engineering Record (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 record and preserve records of the elements that may be affected. However, if this documentation is not sufficient for adversely affected and contributing elements, the project proponent(s) 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 the State Historic Preservation Officer (SHPO), the project proponent(s) 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.</p>				
4.8-b	<p>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</p> <ul style="list-style-type: none"> ▶ Complete an evaluation of identified resources, and determine the effect of proposed work on all eligible or listed resources in accordance with Stipulation IV(A) of the PA. ▶ Consult with 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. 	Evaluation, findings of effect, and treatment would be performed in phases, prior to construction of Phase 4b Project elements that have the potential to result in	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> ▶ When feasible, treatment shall consist of documentation of the site and reduction of adverse effects by protecting the resource through capping or avoidance of the resource. 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 appropriate. ▶ Monitor potentially destructive construction in the vicinity of documented resources, as required under the Construction Monitoring and Inadvertent Discovery Plan. 	impacts on identified National Register of Historic Places (NRHP)- or California Register of Historical Resources (CRHR)-eligible resources			
4.8-c	<p>Train Construction Workers before Construction, Monitor Construction Activities, Stop Potentially Damaging Activities, Evaluate Any Discoveries, and Resolve Adverse Effects on Eligible Resources, if Encountered</p> <ul style="list-style-type: none"> ▶ Update record searches and perform additional literature review as necessary. ▶ SAFCA shall complete surveys to identify cultural resources in the Phase 4a Project footprint, as identified in the Phase 2 EIR (SAFCA 2007:3.8-31) at the program level. ▶ Resolve significant impacts on resources eligible for listing on the NRHP or CRHR as required under the PA. ▶ Implement Mitigation Measure 3.4-d from the Phase 2 Project SEIR (see below with some refinement), as appropriate within the project footprint to identify interred human remains (SAFCA 2009: 3.4-10). 	Before the start of ground-disturbing construction activities	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<p>Mitigation Measure 3.4-d: Conduct Additional Backhoe and Canine Forensic Investigations As Appropriate (Incorporated by Reference Herein)</p> <p>The project proponent(s) may implement the following measures during Section 106 consultation, as appropriate:</p> <ul style="list-style-type: none"> 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 if additional inventory is appropriate and feasible. 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. The project proponent(s) shall consult with the MLD regarding the use of such methods. The project proponent(s) recognize the Tribe's preference for less invasive methods of investigation such as the use of canine forensics. 	Before the start of ground-disturbing construction activities	Project proponent(s)		
	<ul style="list-style-type: none"> Where this process or additional inventory efforts reveal other resources, canine forensic investigations may be used as a way of identifying interred human remains with minimal disturbance, and for further refinement of and understanding of the constituents of identified resources, where canine forensic investigations are appropriate and feasible. 	During ground-disturbing construction activities	Project proponent(s)		
	<ul style="list-style-type: none"> Before construction begins, a qualified professional archaeologist retained by the project proponent(s) 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 Phase 4b Project area. 	Before construction	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
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				Action	Date Completed
	<ul style="list-style-type: none"> A qualified archaeologist shall monitor ground-disturbing construction activities where sensitivity for unidentified resources is high and such monitoring is feasible, and would provide a measure of protection against inadvertent damage to such resources. In areas of known sensitivity, such as archaeological sites containing Native American burials, a Native American monitor will be invited to be present, as appropriate, 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, ground-disturbing activities shall be halted in the vicinity of the find and the construction contractor, the project proponent(s), the MLD, the Native American Heritage Commission (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, it is anticipated 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. 	During construction	Project proponent(s)		
	<ul style="list-style-type: none"> The project proponent(s) shall then consult with the SHPO to determine the eligibility of the resource. If the project proponent(s), in consultation with the SHPO, concur that the resource is eligible and the project may result in adverse effects on the resource, the project proponent(s) shall prepare and implement an HPTP as required under the PA, Stipulation V(A). The HPTP shall be prepared in consultation with the SHPO, and other appropriate consulting parties such as Native American individuals or organizations as appropriate. 	During construction	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> 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 100 feet of the known boundaries of the resource, or the boundaries designated by the SHPO, per the PA, Stipulation V(B)(2). 	During construction	Project proponent(s)		
4.8-d	<p>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 the Project Proponent(s) and the SHPO</p> <p>If human remains are uncovered during ground-disturbing activities, the project proponent(s) 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, it is anticipated 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. The project proponent(s)'s archaeological monitors and/or the contractor shall notify the relevant county coroner and an 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 (California 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. John Tayaba has been designated as the MLD for previous discoveries, and he would likely make recommendations for reinterment of human remains in the event of a discovery.</p>	During ground-disturbing construction activities, in the event of a discovery	Project proponent(s) and their primary construction contractors		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	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. While unlikely, it is possible that ground-disturbing work may disinter human remains associated with an historic burial that is not subject to the jurisdiction of the NAHC. Any such resource shall be treated as an archaeological discovery as required by Mitigation Measure 4.8-c.				
Paleontological Resources					
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 activities in the Riverbank or Modesto Formations, construction personnel involved with earthmoving activities shall be informed by the project proponent(s) 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.	Before earthmoving activities in the Riverbank or Modesto Formations	Project proponent(s) and their primary construction contractors		
	If paleontological resources are discovered during earthmoving activities, the construction crew shall immediately stop work in the vicinity of the find. The project proponent(s) shall retain a qualified paleontologist to evaluate the resource and prepare a mitigation plan in accordance with Society of Vertebrate Paleontology 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 the project proponent, shall be implemented before construction activities can resume at the site where the paleontological resources were discovered.	During earthmoving activities in the Riverbank or Modesto Formations	Project proponent(s) and their primary construction contractors		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
Transportation and Circulation					
4.10-a	<p>Prepare and Implement a Traffic Safety and Control Plan for Construction-Related Truck Trips</p> <p>Before the start of construction in each construction season, the project proponent(s) and 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 Phase 4b Project 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.</p>	<p>Prepare a coordinated construction traffic control plan before start of construction in each construction season; and enforce the plans during construction</p>	<p>Project proponent(s) and their primary engineering and construction contractors</p>		
	<p>(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. The project proponent(s) shall ensure that the construction contractors enforce the plans throughout the construction periods.</p> <p>(b) The construction contractors shall develop a traffic safety and control plan 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 the California Department of Transportation (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:</p> <ul style="list-style-type: none"> ▶ posting warnings about the potential presence of slow-moving vehicles; ▶ using traffic control personnel when appropriate; and 				

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
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	<p>► placing and maintaining barriers and installing traffic control devices necessary for safety, as specified in Caltrans’s <i>Manual of Traffic Controls for Construction and Maintenance Works Zones</i> and in accordance with city/county requirements (Caltrans 1996).</p> <p>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.</p>				
	<p>(c) Consistent with Mitigation Measure 4.11-a, “Implement Applicable District-Recommended Control Measures to Minimize Temporary Emissions of reactive organic gases (ROG), oxides of nitrogen (NO_x), and respirable particulate matter less than 10 microns in diameter (PM₁₀) 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 preventive 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 high-efficiency particulate air (HEPA) filter equipped vacuum device shall be used for roadway dust removal.</p>	During construction	Project proponent(s) and their primary construction contractors		
	<p>(d) A Transportation Management Plan shall be prepared and submitted to Caltrans District 3 to address any points of access from the state highway system for haul trucks and other construction equipment, and traffic control as a result of construction activities at the State Route (SR) 99 NCC bridge.</p>	Before construction	Project proponent(s) and their primary construction contractors		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	(e) Before the start of the first construction season, the project proponent(s) shall coordinate with Sutter and Sacramento Counties and the City of Sacramento to address maintenance and repair of affected roadways resulting from increased truck traffic.	Before construction	SAFCA (regardless of whether USACE or SAFCA implements the Phase 4b Project)		
	(f) Before project construction begins, the project proponent(s) 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.	Before construction	SAFCA (regardless of whether USACE or SAFCA implements the Phase 4b Project)		
	(g) Before the start of construction, the project proponent(s) and primary contractors shall coordinate with Sacramento County and the City of Sacramento regarding any closures of Garden Highway and associated detours.	Before construction	SAFCA (regardless of whether USACE or SAFCA implements the Phase 4b Project)		
4.10-b	Implement Mitigation Measure 4.10-a, “Prepare and Implement a Traffic Safety and Control Plan for Construction-Related Truck Trips” Implement Mitigation Measure 4.10-a.	See Mitigation Measure 4.10-a	See Mitigation Measure 4.10-a		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
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				Action	Date Completed
4.10-c	<p>Implement Mitigation Measure 4.10-a, “Prepare and Implement a Traffic Safety and Control Plan for Construction-related Truck Trips”</p> <p>Implement Mitigation Measure 4.10-a.</p>	See Mitigation Measure 4.10-a	See Mitigation Measure 4.10-a		
4.10-d	<p>Prepare and Implement a Bicycle Detour Plan for Project Area Roadways and Bike Trails, Including Garden Highway and the NEMDC Levees</p> <p>Before the start of construction, the project proponent(s) or and primary contractors shall prepare a bicycle detour plan for roadways and bike trails that would be affected by project construction activities, including Garden Highway and NEMDC levees, 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.</p>	Before start of construction	Project proponent(s) and their primary engineering and construction contractors		
Air Quality					
4.11-a	<p>Implement Applicable District-Recommended Control Measures to Minimize Temporary and Short-Term Emissions of ROG, NO_x, and PM₁₀ during Construction</p>				

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<p>Construction in Sutter County (Feather River Air Quality Management District [FRAQMD]) For portions of the project occurring in Sutter County, FRAQMD’s Draft <i>Indirect Source Review Guidelines</i> and online CEQA guidance provide mitigation measures for reducing temporary and short-term air quality impacts. As recommended by FRAQMD, the project proponent(s) 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).</p> <p>1. The project proponent(s) shall implement a Fugitive Dust Control Plan that includes the following measures:</p> <ul style="list-style-type: none"> ▶ All earthmoving operations shall 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. 	Submit fugitive dust control plan before the start of ground-disturbing construction activities; and implement measures during construction	Project proponent(s) and their primary construction contractors		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> ▶ 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, the project proponent(s) 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. 				

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
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	<ul style="list-style-type: none"> ▶ 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. <ol style="list-style-type: none"> 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. The project proponent(s) 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. 				

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<p>7. The project proponent(s) 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:</p> <ul style="list-style-type: none"> ▶ Reduce NO_x emissions from off-road diesel-powered equipment: The project proponent(s) 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 40% NO_x reduction and 45% particulate reduction² compared to the most recent ARB fleet average at time of construction. <p>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, 40% reduction in NO_x emissions from construction equipment, and 45% reduction in PM₁₀ 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 21 lb/day of ROG, 78 lb/day of NO_x, 75 lbs/day of PM₁₀, and 26 lb/day of PM_{2.5} for the Phase 4b Project (differences between the Adjacent Levee Alternative [Proposed Action] and Fix-in-Place Alternative occur in Sacramento County).</p>	Before the start of ground-breaking construction activities	Project proponent(s) and their primary construction contractors		

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 projects; 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.

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<p>8. The project proponent(s) shall enter into a voluntary emissions reduction agreement with the FRAQMD to mitigate the portion of construction-generated emissions of NO_x that exceeds the FRAQMD CEQA thresholds established in the 2010 Draft <i>Indirect Source Review Guidelines</i>, as presented in Section 4.11.1.2 of the EIS/EIR. Prior to the occurrence of any construction-related activities within areas under the jurisdiction of the FRAQMD, the project proponent(s) will provide to the FRAQMD detailed equipment inventories which will be used to calculate the NO_x emissions offset fee. Predicted emissions estimates presented in the EIS/EIR represent worst-case emissions and would not be used to calculate the offset fee. The applicable fee rate shall be 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 FRAQMD.</p>				
	<p>Construction in Sacramento County (Sacramento Metropolitan Air Quality Management District [SMAQMD])</p> <p>For portions of the project occurring in Sacramento County, SMAQMD's <i>Guide to Air Quality Assessment in Sacramento County</i> (SMAQMD 2004) provides mitigation measures for reducing temporary and short-term air quality impacts. As recommended by SMAQMD, the project proponent(s) shall ensure that the following mitigation measures are implemented during all project construction activities to the extent practicable and feasible.</p>	<p>Submit fugitive dust control plan before the commencement of ground-disturbing construction activities; and implement measures during construction</p>	<p>Project proponent(s) and their primary construction contractors</p>		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> ▶ The project proponent(s) 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. The project proponent(s) and primary construction contractors shall ensure that dust is not causing a nuisance beyond the property line of the construction site. ▶ If overlapping construction phases in Sacramento County create unmitigated PM₁₀ emissions in excess of the General Conformity threshold, per SMAQMD Rule 104, of 100 tons per year (TPY), the project proponent(s) shall use advanced dust suppressant materials (such as EnviroTac II) on all unpaved roadways and stockpiled materials to ensure enhanced fugitive dust control up to 90% or greater of fugitive dust and PM₁₀ emissions. ▶ The project proponent(s) 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 40% NO_x reduction and 45% particulate reduction compared to the most recent ARB fleet average at the time of construction.³ 				

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.

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> ▶ 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, the project proponent(s) 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. 				

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> The project proponent(s) shall pay SMAQMD an off-site mitigation fee for implementation of any proposed alternatives for the purpose of reducing NO_x emissions impacts to a less-than-significant level. Based on the construction information presented in Chapter 2, "Alternatives" and the emissions calculations shown in Appendix F of the EIS/EIR, if the Proposed Action is implemented, the total estimated fee, including a 5% administrative fee, for elements occurring during the 2012 through 2016 construction seasons within Sacramento County would be \$222,936. The fee calculation to offset 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 \$16,400 per ton). An initial payment, based on 50% of the estimated fee, shall be remitted to SMAQMD before groundbreaking. The final mitigation fee shall be based on contractor equipment inventories provided by the project proponent(s) to SMAQMD and would reconcile any fee discrepancies due to schedule adjustments or increased equipment inventories. 				
	<p>All Project Construction</p> <p>The project proponent(s) shall implement the following additional measures to reduce construction emissions of PM₁₀ comprising fugitive dust and mobile-exhaust and ozone precursors throughout the project area:</p> <ul style="list-style-type: none"> 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. 	Implement measures during construction	Project proponent(s) and their primary construction contractors		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> ▶ 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. ▶ When feasible and determined to be necessary, install ARB-certified Level 3 diesel particulate filters (DPF) on diesel-powered construction equipment pieces. 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. 				

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
Noise					
4.12-a	Implement Noise-Reducing Construction Practices, Prepare and Implement a Noise Control Plan, and Monitor and Record Construction Noise Near Sensitive Receptors				
	All Project Construction <ul style="list-style-type: none"> ▶ 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. 	Implement measures during construction	Project proponent(s) and their primary construction contractors		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> ▶ Before construction activity begins within 500 feet of one or more residences or businesses, SAFCA shall provide written notification 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 the project proponent(s). ▶ The primary contractor shall prepare and implement a detailed noise control plan based on the proposed construction methods and using the recorded noise monitoring results described above to facilitate implementing specific noise-reduction measures. 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 the project proponent(s) before any noise-generating construction activity begins. 				

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<p>24/7 Project Construction</p> <ul style="list-style-type: none"> ▶ When construction of cutoff walls takes place during nighttime hours (between 10:00 p.m. and 6:00 a.m.), the project proponent(s) 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. 	During nighttime construction of cutoff walls	Project proponent(s)		
	<ul style="list-style-type: none"> ▶ When construction of groundwater wells (including up to 2 weeks of continuous pump testing for each well) or modifications to pumping plants 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), the project proponent(s) 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 plants takes place within 500 feet of the residents requesting reimbursement. 	During nighttime construction of groundwater wells (including up to 2 weeks of continuous pump testing for each well) or modifications to pumping plants	Project proponent(s)		
4.12-b	<p>Implement Vibration-Reducing Construction Practices, Prepare and Implement a Groundborne Vibration Control Plan, and Monitor and Record Construction Groundborne Vibration Near Sensitive Receptors</p> <ul style="list-style-type: none"> ▶ Equipment shall be used as far away as practical from vibration-sensitive uses. 	During construction	Project proponent(s) and their primary construction contractors		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> ▶ Designate a Preservation Director and post contact information in a conspicuous location near the project site, so that it is clearly visible to nearby receptors most likely to be disturbed. The coordinator shall manage complaints and concerns resulting from vibration-inducing activities. The severity of the vibration concern would be assessed by the director, and if necessary, evaluated by a qualified vibration control engineer. 	Designate a Preservation Director before construction; and make Preservation Director available during construction	Project proponent(s) and their primary construction contractors		
	<ul style="list-style-type: none"> ▶ Before construction activity begins within 45 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 vibration levels are overly intrusive. ▶ Before construction activity begins within 45 feet of one or more residences or businesses, the pre-existing condition of all buildings within a 45-foot radius within the immediate vicinity of proposed construction activities shall be recorded in the form of a preconstruction survey. The preconstruction survey shall determine conditions that exist before construction begins for use in evaluating damage caused by construction activities. Fixtures and finishes within a 45-foot radius of construction activities susceptible to damage shall be documented (photographically and in writing) prior to construction. All damage shall be repaired back to its pre-existing condition following the completion of construction activities and post-construction surveys of affected residences or businesses. 	Before construction activity begins within 45 feet of one or more residences or businesses	Project proponent(s) and their primary construction contractors		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> ▶ When it is determined that construction generated vibration exceeds the threshold of human annoyance at a sensitive receptor, the project proponent(s) 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 takes place within 45 feet of the residents requesting reimbursement. 	During construction	Project proponent(s) and their primary construction contractors		
	<ul style="list-style-type: none"> ▶ The primary contractor shall prepare and implement a detailed vibration control plan based on the proposed construction methods. This plan shall identify specific measures to ensure compliance with the vibration control measures specified above. The vibration control plan shall be submitted to and approved by the project proponent(s) before any vibration-generating construction activity begins. 	Prepare plan before vibration-generating construction activity begins; and implement plan during construction	Project proponent(s) and their primary construction contractors		
4.12-c	<p>Implement Noise-Reduction Measures to Reduce the Impacts of Haul Truck Traffic Noise</p> <ul style="list-style-type: none"> ▶ All heavy trucks shall be equipped with noise-control (e.g., muffler) devices in accordance with manufacturers' specifications. 	During construction	Project proponent(s) and their primary construction contractors		
	<ul style="list-style-type: none"> ▶ 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 use and a minimum of once per year	Project proponent(s) and their primary construction contractors		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> Before haul truck trips are initiated during a construction season on roads within 145 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. 	Before haul truck trips are initiated during a construction season on roads within 145 feet of residences	Project proponent(s) and their primary construction contractors		
Recreation					
4.13-b	<p>Compensate City of Sacramento Department of Parks and Recreation for Loss of Parkland and Park Amenities</p> <p>The project proponent(s) shall provide compensation for loss of park land, park amenities, and park function, including, but not limited to, any loss of land at the undeveloped Costa Park site and replacement and/or relocation of the Garden Highway Bikeway, restoration of the Ueda Parkway Bike Trail, and restoration of parklands used for construction staging areas. The project proponent(s) shall consult with the City of Sacramento Department of Parks and Recreation to determine appropriate compensation. Compensation shall, at a minimum, replace parkland acreage at a 1:1 ratio, and shall provide for full restoration of park amenities such as Heritage oak trees, other landscaping, sports fields, bikeways, and related equipment and structures in accordance with the Public Parks Preservation Act of 1971.</p>	Consult with the City of Sacramento Department of Parks and Recreation before start of construction; and provide compensation following construction	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	The project proponent(s) shall compensate for loss of Heritage trees and native oak trees from within the City of Sacramento’s public parks and open space areas. Heritage trees shall be replaced in accordance with Sacramento City Code, Title 12, Streets, Sidewalks and Public Places, Chapter 12.64 Heritage Trees. California native trees shall be replaced with like species. Priority shall be given to replacement plantings within the Natomas Basin on public park land or open space/natural areas accessible to the public. Second priority would be replacement in public park areas of North Sacramento located within the City. The project proponent(s) shall consult with City of Sacramento Department of Parks and Recreation regarding the location of compensatory woodland plantings on City property, including but not limited to the City-owned portion of the Hansen Ranch property.				
4.13-c(1)	<p>Prepare and Implement a Bicycle Detour Plan for All Bicycle Trails and On-Street Bicycle Routes, Provide Detours for Bicycle Facilities, and Coordinate with City and/or County Departments of Parks and Recreation to Repair of Damage to Recreational Facilities</p> <ul style="list-style-type: none"> ▶ Before the start of construction, prepare a bicycle detour plan for all bicycle trails and on-street bicycle routes, including the Ueda Parkway Bicycle Trail and Garden Highway Bikeway, in consultation with the County and/or City of Sacramento Bicycle and Pedestrian Coordinator as applicable. The detour plan shall include posted signs clearly indicating closure points, detour routes, roadway markings to designate temporary bike lanes, and informational signs to notify motorists to share the roads with bicyclists. Signs shall be posted at major entry points for bicycle trails and routes to notify users of closure dates, 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. 	Prepare bicycle detour plan before start of construction activities; and implement plan during construction	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
Mitigation Number (from EIS/EIR)	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<ul style="list-style-type: none"> Upon completion of the levee improvements, coordinate with the City and/or County (where applicable) for the City and/or County (where applicable) to restore access and repair or reconstruct any construction-related damage to recreational facilities, including the Ueda Parkway Bicycle Trail and Garden Highway Bikeway. 	Upon completion of the levee improvements	Project proponent(s)		
4.13-c(2)	<p>Provide Construction Period Information on Recreational Facility Closures and Detours and Provide Detours for Alternate Routes to Marinas</p> <p>The project proponent(s) shall provide public information through the media and on the project proponent's Web site regarding detours and alternative access routes to public and private recreational facilities affected by project construction. The project proponent(s) shall coordinate with the Sutter County, Sacramento County, and City of Sacramento Department of Parks and Recreation to make available information to the public regarding closure of public recreational facilities, detours, and alternate sites available.</p>	Before start of and during construction	Project proponent(s)		
Visual Resources					
4.14-a	<p>Implement Mitigation Measures 4.7-a, "Minimize Effects on Woodland Habitat; Implement Woodland Habitat Improvements and Management Agreements; Compensate for Loss of Habitat; and Comply with Section 7 of the Federal Endangered Species Act, Section 2081 of the California Endangered Species Act, and Section 1602 of the California Fish and Game Code," and 4.13-b, "Compensate City of Sacramento Department of Parks and Recreation for Loss of Parkland and Park Amenities"</p> <p>Implement Mitigation Measures 4.7-a and 4.13-b</p>	See Mitigation Measures 4.7-a and 4.13-b	See Mitigation Measures 4.7-a and 4.13-b		
4.14-b	<p>Direct Lighting Away from Adjacent Properties</p> <ul style="list-style-type: none"> Require that nearby residents to construction activities be notified in advance of any nighttime construction activities. 	Before the start of nighttime construction activities	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
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				Action	Date Completed
	<ul style="list-style-type: none"> ▶ Require that construction and security lighting be shielded and directed downward to minimize the spill of light onto adjacent properties. 	During construction	Project proponent(s)		
Utilities and Service Systems					
4.15-a	<p>Coordinate with Irrigation Water Supply Users Before and During All Irrigation Infrastructure Modifications and Implement Measures to Minimize Interruptions of Supply</p> <ul style="list-style-type: none"> ▶ Coordinate the timing of all modifications to irrigation supply infrastructure with the affected infrastructure owners and water supply users, either directly or through the Natomas Central Mutual Water Company (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. 	During project design and construction	Project proponent(s) and their primary engineering and construction contractors		

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4.15-b	<p>Verify Utility Locations, Coordinate with Utility Providers, Prepare and Implement a Response Plan, and Conduct Worker Training with Respect to Accidental Utility Damage</p> <p>Before construction begins, the project proponent(s) and its primary contractors shall coordinate with CVFPB and applicable utility providers to implement orderly relocation of utilities that need to be removed or relocated. If SAFCA is the project proponent instead of USACE, SAFCA shall coordinate with USACE, as well as CVFPB. Power pole relocations shall be coordinated with the Sacramento Municipal Utility District (SMUD). Consistent with sound engineering practices that prioritize the following, individual service lines shall: (1) use existing configurations and facilities to the extent feasible, (2) place any new poles on the landside of Garden Highway to the extent feasible, subject to the approval of USACE (only if SAFCA is the project proponent), CVFPB, and any other pertinent regulatory public agency and utility company; and (3) if waterside poles are necessary on the Sacramento River east levee in Reaches A:19B–20, any such relocation of utilities would be subject to the approval of USACE (only if SAFCA is the project proponent), CVFPB, and any other pertinent regulatory public agency and utility company. The project proponent(s) and its primary contractors shall provide the following:</p> <ul style="list-style-type: none"> ▶ 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 start of construction	Project proponent(s) and their primary engineering and construction contractors		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
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	<ul style="list-style-type: none"> 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 the project proponent(s) and its contractors during construction activities. 				
Hazards and Hazardous Materials					
4.16-b	<p>Cooperate with Olympian Oil and Regulatory Agencies to Preserve, Modify, or Close Existing Groundwater Monitoring Wells at the Olympian Oil Site</p> <p>The project proponent(s) that would implement modifications to Pumping Plant No. 8, which would be located within the Olympian Oil site boundary, shall submit copies of plans and specifications to Olympian Oil, Sacramento County, and the Central Valley RWQCB for coordination purposes. The project proponent(s) shall coordinate with Olympian Oil or any successor, Sacramento County, and the Central Valley RWQCB to establish and implement the preservation, modification, or closure of existing groundwater monitoring wells that will interfere with project implementation. Construction shall not proceed within the Olympian Oil site boundary or on lands used for groundwater monitoring and other remediation activities until Sacramento County and the Central Valley RWQCB have approved Olympian Oil's or a successor's plan for well preservation, modification, or closure. Preservation, modification, and/or closure of monitoring wells would remain the responsibility of Olympian Oil or successor.</p>	Before the start of construction activities on Pumping Plant No. 8	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
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4.16-c(1)	<p>Complete Recommendations Included in Phase I and/or II Environmental Site Assessments (ESAs) and Implement Required Measures</p> <p>APN 35-080-022: Conduct a Phase II ESA to evaluate stained soil found on the site and the contents of unlabeled containers located on the site if these areas will be used for the Phase 4b Project. In addition, the project proponent(s) shall work with PG&E to determine if on-site transformers contain polychlorinated biphenyls (PCBs).</p> <p>APN 35-120-007: Conduct a Phase II ESA to evaluate stained soil and the presence of pesticides and herbicides on the site and the contents of unlabeled containers located on the site if these areas will be used for the Phase 4b Project. If piping is found during excavation, it shall be removed in accordance with applicable Federal, state, and local laws and regulations. In addition, the project proponent(s) shall work with PG&E to determine if on-site transformers contain PCBs.</p> <p>APN 35-150-005: Conduct a Phase II ESA if stained soil is discovered during earthmoving activities to evaluate stained soil and the presence of pesticides and herbicides on the site. If piping is found during excavation, it shall be removed in accordance with applicable Federal, state, and local laws and regulations. In addition, the project proponent(s) shall work with PG&E to determine if on-site transformers contain PCBs.</p> <p>APN 35-170-080: the project proponent(s) shall, as necessary, remove the existing septic system and discovered underground pipelines, in accordance with applicable Federal, state, and local laws and regulations.</p>	Before start of construction activities on each respective parcel	Project proponent(s) and applicable property owners		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
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	<p>APN 35-271-021: Conduct a Phase II ESA, if stained soil or strange odors are discovered during earthmoving activities, to evaluate stained soil and the presence of hazardous materials on the site. If piping is found during excavation, it shall be removed in accordance with applicable Federal, state, and local laws and regulations. In addition, the project proponent(s) shall work with PG&E to determine if on-site transformers contain PCBs.</p> <p>APN 35-271-015: Conduct a Phase II ESA, if stained soil or strange odors are discovered during earthmoving activities, to evaluate stained soil and the presence of hazardous materials on the site. If piping is found during excavation, it shall be removed in accordance with applicable Federal, state, and local laws and regulations. In addition, the project proponent(s) shall work with PG&E to determine if on-site transformers contain PCBs.</p>				
4.16-c(2)	<p>Complete Phase I and/or II ESAs, Soil, and/or Groundwater Investigations in Phase 4b Project Footprint Areas Not Covered by the Existing Phase I and/or II ESAs, and Implement Required Measures (e.g., Site Management and/or Other Contingency Plans)</p> <p>Before the start of construction and earthmoving activities, on parcels where project-related earthmoving activities would occur (including borrow activities), the project proponent(s) shall conduct Phase I ESAs (if not previously conducted), Phase II ESAs (if necessary), and/or other appropriate testing, including, as necessary, analysis of soil and/or groundwater samples for the potential contamination sites that have been previously investigated. Recommendations in the Phase I and II ESAs to address any identified contamination shall be implemented before initiating ground-disturbing activities, and may include the following:</p>	Before start of construction and earthmoving activities	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
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	<ul style="list-style-type: none"> ▶ Prepare a site management plan 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 				

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
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	<p>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.</p> <ul style="list-style-type: none"> ▶ Retain an industrial hygienist to prepare a construction worker health and safety plan, which shall include, but not be limited to: personal protective equipment for construction 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, and local laws and 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/m³ as well as at the project boundaries using the Fenceline Particulate NOS goal of 0.3 mg/m³. ▶ Retain a licensed contractor to remove underground storage tanks (USTs), aboveground storage tanks (ASTs), and stained soils in accordance with applicable Federal, state, and local laws and regulations. 				

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
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	<ul style="list-style-type: none"> ▶ Retain a licensed contractor to remove and dispose of asbestos cement pipe found within the Phase 4b Project area in accordance with applicable Federal, state, 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, and local laws and regulations. 				
	<ul style="list-style-type: none"> ▶ Retain an asbestos specialist who is certified by the California Occupational Safety and Health Administration (Cal/OSHA) to 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 the U.S. Environmental Protection Agency (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. 	Before demolition of on-site buildings and utilities	Project proponent(s)		
	<ul style="list-style-type: none"> ▶ Obtain an assessment conducted by SMUD and/or the Pacific Gas & Electric Company pertaining to the contents of the existing pole-mounted transformers that would be relocated as part of the Phase 4b Project. The assessment shall determine whether existing on-site electrical transformers contain 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. 	Before start of construction	Project proponent(s)		
	<ul style="list-style-type: none"> ▶ Identify oil and gas well locations. Prepare and implement a California Department of Oil, Gas, and Geothermal Resources well review program, if necessary. 	Before start of construction	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
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	<ul style="list-style-type: none"> ▶ Notify the appropriate Federal, state, 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, the California Department of Toxic Substances Control (DTSC) or other appropriate Federal, state, regional, or local regulatory agencies as generally described above. 	During construction	Project proponent(s)		
	<ul style="list-style-type: none"> ▶ Implement Mitigation Measure 4.15-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 4.15, “Utilities and Service Systems.” 	See Mitigation Measure 4.15-b	See Mitigation Measure 4.15-b		
4.16-d	<p>Implement Mitigation Measure 4.10-a, “Prepare and Implement a Traffic Safety and Control Plan for Construction-Related Truck Trips”</p> <p>Implement Mitigation Measure 4.10-a</p>	See Mitigation Measure 4.10-a	See Mitigation Measure 4.10-a		
4.16-e	<p>Notify the Natomas Unified School District and Affected Schools within One-Quarter Mile of Project Construction Activities</p> <p>The project proponent(s) shall provide written notification of the project to the Natomas Unified School District and each of the affected schools within 30 days prior to SAFCA’s certification of the EIR and shall consult with Natomas Unified School District regarding the potential impacts on school children from hazards associated with Phase 4b Project implementation.</p>	Within 30 days prior to SAFCA’s certification of the EIR	SAFCA (regardless of who implements the Phase 4b Project)	Sent notification letter	September 29, 2010

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
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4.16-g	<p>Consult with SCAS and the FAA during Design of the Proposed Natomas Levee Class I Bike Trail to Implement Appropriate Airport Safety Precautions</p> <p>SacDOT, Sutter County, and the City of Sacramento to shall consult with SCAS and the FAA to ensure that applicable regulations and safety precautions are considered and built into construction of the proposed Natomas Levee Class I Bike Trail. These safety precautions shall include project elements that would reduce opportunities for hazards to the Airport and public, and may include features such as fencing, increased security personnel, and special consideration of alignment and parking areas near the Airport. The Natomas Levee Class I Bike Trail shall not be opened for use until these elements are completed.</p>	Before start of construction of the proposed Natomas Levee Class I Bike Trail	SacDOT, Sutter County, and the City of Sacramento		
4.16-h	<p>Prepare and Implement a Fire Management Plan to Minimize Potential for Wildland Fires</p> <p>The project proponent(s) 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 the start of project construction. The plan shall describe fire prevention and response methods, including fire precaution, pre-suppression, 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.</p>	Prepare fire management plan and conduct construction personnel training before start of construction; and implement measures during construction	Project proponent(s)		

Mitigation Monitoring and Reporting Program for the Common Features/Natomas PACR/Phase 4b Project					
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Environmental Justice					
4.17-a	<p>Increase the Direct Benefits of the Project for the Ancestors of the Native American Tribes</p> <p>As part of the Phase 4b Project, the project proponent(s) 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, the project proponent(s) 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:</p> <ul style="list-style-type: none"> ▶ 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. 	During project design and construction	Project proponent(s)		

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