Addendum to the Environmental Impact Report on the

Natomas Levee Improvement Program
Phase 4a Landside Improvements Project

State Clearinghouse # 209032097

Prepared for:

SAFCA
Sacramento
Area Flood
Control
Agency

February 2011

Addendum to the Environmental Impact Report on the

Natomas Levee Improvement Program Phase 4a Landside Improvements Project

State Clearinghouse # 2009032097

Prepared for:

Sacramento Area Flood Control Agency
1007 7th Street, 7th Floor
Sacramento, CA 95814

Contact:

John A. Bassett
Director of Engineering
Phone (916) 874-7606
Fax (916) 874-8289

Prepared by:

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811

Contact:

Francine Dunn
Project Manager
Phone (916) 414-5800

February 2011

ADDENDUM TO THE PHASE 4a LANDSIDE EIR

INTRODUCTION

This addendum to the *Final Environmental Impact Report, Natomas Levee Improvement Program Phase 4a Landside Improvements Project* (State Clearinghouse No. 2009032097) addresses habitat design refinements in the Fisherman's Lake area, including expansion of managed marsh, widening of a portion of the west bank of the Fisherman's Lake channel, additional improvements to the Pumping Plant No. 3 intake channel, and construction of a recirculation ditch to improve water quality in Fisherman's Lake. In addition, this addendum evaluates the addition of a woodland habitat creation and preservation corridor in Sacramento River east levee Reach 9B.

Because the Phase 4a Project as described and analyzed in the previously certified Environmental Impact Report (Phase 4a EIS/EIR) did not identify and evaluate these habitat design refinements, a minor modification to the certified EIR is necessary. The Phase 4a Environmental Impact Statement (EIS) and Environmental Impact Report (which constitutes the Draft EIS/EIR [DEIS/DEIR], final EIS (FEIS), and Final EIR [FEIR]) are available at the Sacramento Area Flood Control Agency (SAFCA) offices at 1007 7th Street, 7th Floor, Sacramento, CA 95814, and online at SAFCA's Web site (http://www.safca.org/ Programs_Natomas.html). The regional location of the proposed activities is depicted on **Plate 1**.

PROJECT DESCRIPTION

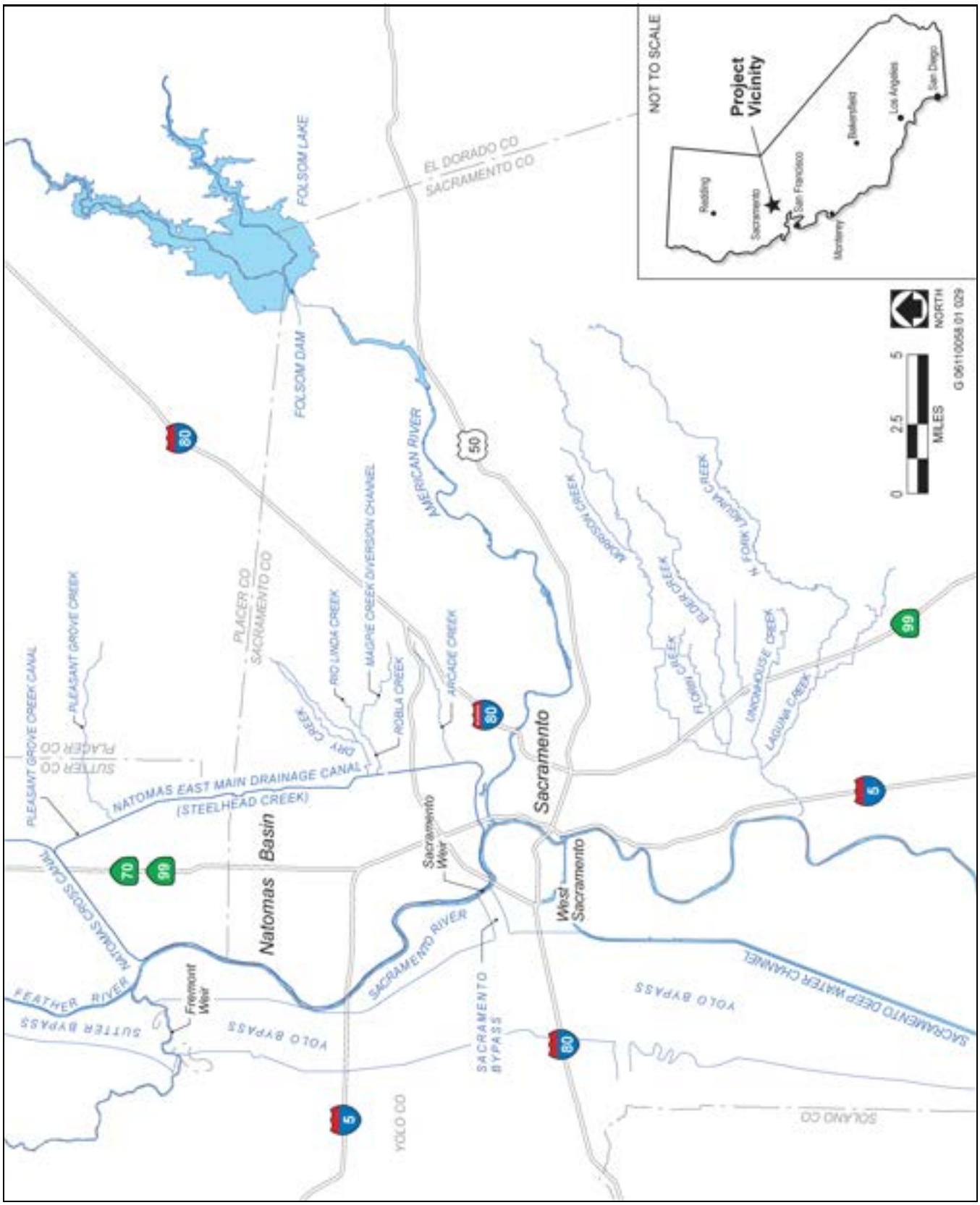
MANAGED MARSH AT THE NATOMAS BASIN CONSERVANCY NATOMAS FARMS PRESERVE

The Phase 4a EIS/EIR evaluated the establishment of up to 120 acres of managed marsh in reclaimed borrow sites in the Fisherman's Lake area using the Natomas Urban Development, Sharma, AKT, and Johnson properties. SAFCA has further refined this design, proposing to acquire in fee title an additional marsh site on a portion of the Natomas Farms Preserve [Assessor's Parcel Number (APN) 225-0090-062] that is currently owned by The Natomas Basin Conservancy (TNBC). The approximately 38-acre site is located immediately north of the previously evaluated Sharma managed marsh site (see **Plate 2**).

The addition of the Natomas Farms Preserve site to the project footprint would encroach onto TNBC reserve land that provides Swainson's hawk foraging habitat and convert this land to managed marsh habitat benefiting the giant garter snake. The proceeds from the sale of the parcel to SAFCA, based on the current value-per-acre, would contribute funds to TNBC to offset direct impacts to TNBC reserves on an acre-per-acre basis, allowing TNBC to draw upon its existing land surplus. TNBC would be granted a conservation easement on the site, which it would manage as a habitat preserve.

The addition of the Natomas Farms Preserve site would increase the total area of managed marsh that potentially would be created to support the Natomas Levee Improvement Program (NLIP) by approximately 38 acres from 120 to 158 acres. The Natomas Farms Preserve site would yield up to 350,000 cubic yards of borrow material for levee improvements along the Sacramento River east levee, substituting for the borrow material that would have come from the Natomas Urban Development and Johnson Borrow sites, of which SAFCA has suspended use as borrow sites indefinitely. The proposed project modifications evaluated in this addendum to the Phase 4a EIS/EIR would not change the total volume of borrow material required to construct levee improvements. Therefore, use of the Natomas Farms Preserve site would not add to the emissions from construction equipment, including from haul truck trips, that were evaluated in the Phase 4a EIS/EIR.

The marsh design concept and construction activities would be the same as described in the Phase 4a EIS/EIR. The additional managed marsh acreage would not require an increase in the water supply beyond the groundwater



Source: CaSil, Adapted by EDAW in 2008

Project Location **Plate 1**

Source: Mead & Hunt Borrow 2010

Fisherman's Lake Habitat Complex **Plate 2**

and surface water sources that were previously identified and evaluated. Prior to excavation for borrow material, the top soil would be preserved to the extent possible and deposited on the adjacent TNBC parcel to the west, where it would be incorporated into the soil to improve agricultural productivity. The borrow material excavated to create the marsh would be transported to levee construction sites using the same off-road haul routes identified and analyzed in the Phase 4a EIS/EIR.

FISHERMAN'S LAKE CHANNEL WIDENING AND ROAD IMPROVEMENTS

The west bank of the Fisherman's Lake channel, which is owned and operated by Reclamation District 1000 (RD 1000) would be widened by 120 to 180 feet from the northeast corner of the TNBC Natomas Farms Preserve to the intake channel of Pumping Plant No. 3 for a distance of approximately 3,000 feet (see **Plate 2**). The channel would also be deepened by several feet at this location, as shown on the typical cross section (see **Plate 3**). The southern portion of these improvements would occur on APN 225-0090-067, which the Phase 4a EIS/EIR evaluated as the Sharma managed marsh site. The northern portion of these improvements would occur adjacent to an existing managed marsh TNBC's Natomas Farms Preserve (APN 225-0090-62).

The excavated material (up to approximately 120,000 cubic yards) would be used for levee improvements along the Sacramento River east levee to the west. In addition to providing levee material, the channel widening is intended to improve water quality and enhance existing habitat for giant garter snake (GGS) on the west side of Fisherman's Lake.

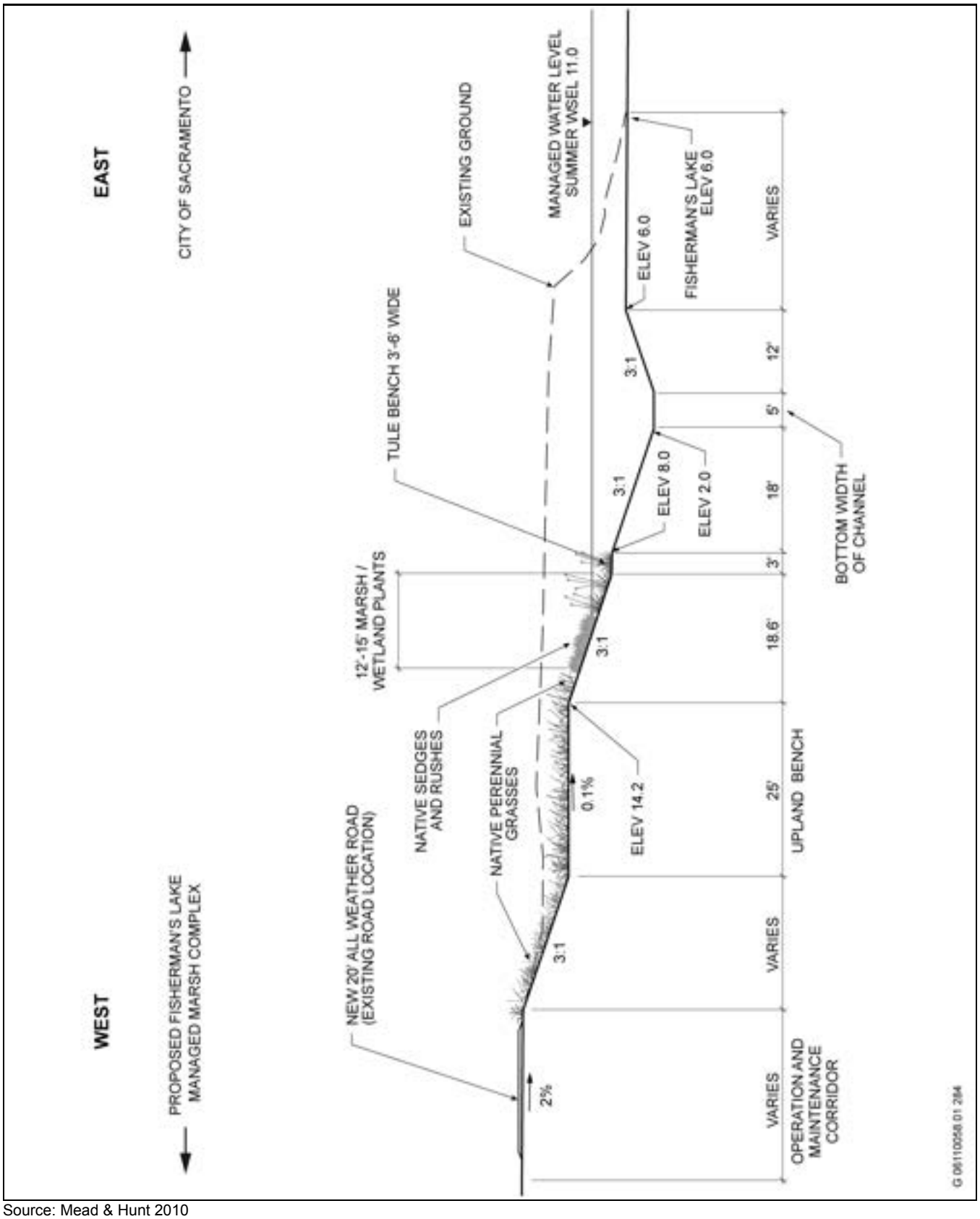
The proposed channel widening would involve lowering and grading the existing slope (where an RD 1000 maintenance road currently exists) to create a new all-weather road that would be maintained by RD 1000, a wide upland bench that would be planted with native grasses, and a 3H:1V waterside slope to stabilize the bank of the channel and reduce erosion (**Plate 3**). The waterside slope would include a 3-foot-wide flat bench that would be planted with tule (*Scirpus californicus*) to provide GGS habitat and improve passage for GGS between Fisherman's Lake and the existing and planned managed marsh west of the lake. In addition, the excavation would create a low-flow channel, approximately 30 feet in width, at the edge of the bank to increase flow, lower water temperatures, and reduce the amount of shallow water favored by many of the aquatic weed species that have invaded the lake. Combined with the additional water circulation flexibility that would be provided by the proposed recirculation ditch (see "Fisherman's Lake Recirculation Improvements" below), these improvements would enhance the water quality in Fisherman's Lake, which is currently subject to stagnant conditions and algae blooms.

Excavation would occur in sections over a period of 6–8 weeks. To prevent sediment and other debris from contaminating Fisherman's Lake during construction, temporary watertight barriers, such as silk curtains, water-filled bladder dams, or sheet piling, would be installed in the channel beyond the limit of where the west bank would be excavated. Excavation equipment, such as backhoes, would then dig out the excess material, which would then be trucked to a nearby stockpile area, such as the adjacent Sharma borrow site.

Following excavation of each section, the suspended sediment in the water along the bank would be left to settle for 1–2 days prior to removal of the watertight barriers separating the excavation area from Fisherman's Lake. Water quality would be tested prior to removal to ensure that the water did not exceed standards for Total Maximum Daily Load (TMDL). Following excavation, the upper bank and elevated work area would be finish graded, and the all-weather maintenance road would be constructed.

PUMPING PLANT NO. 3 CHANNEL IMPROVEMENTS

The Phase 4a EIS/EIR evaluated seepage improvements in the Pumping Plant No. 3 intake channel as part of modifications to the pumping plant. Refinement of the habitat design in Fisherman's Lake has identified the need for additional improvements to the intake channel that were not previously evaluated. To improve maintenance access, the banks would be lowered to 4–6 feet above normal water surface elevation within the channel. In



Source: Mead & Hunt 2010

Typical Fisherman's Lake West Bank Improvements Cross Section Improvement Section Plate 3

addition, culverts would be installed along both banks to connect the Sharma and AKT marshes to the channel to allow drainage. The grading would take place above the channel's ordinary high water mark (OHWM). Temporary dewatering of the channel would be needed to construct these improvements. The proposed improvements would require no additional land acquisitions or easements beyond those evaluated in the Phase 4a EIS/EIR.

FISHERMAN'S LAKE RECIRCULATION IMPROVEMENTS

A recirculation ditch would be constructed from the eastern end of the TNBC supply ditch on the Natomas Farms Preserve to the West Drainage Canal. **Plate 2** shows the location of the proposed recirculation ditch. This ditch was described at a conceptual level in Phase 4a EIS/EIR. The ditch would supply water from the Riverside Pumping Plant to the West Drainage Canal via the Riverside Canal, Kimura ditch, and TNBC supply ditch to bring additional flow into the Fisherman's Lake area and improve water quality.

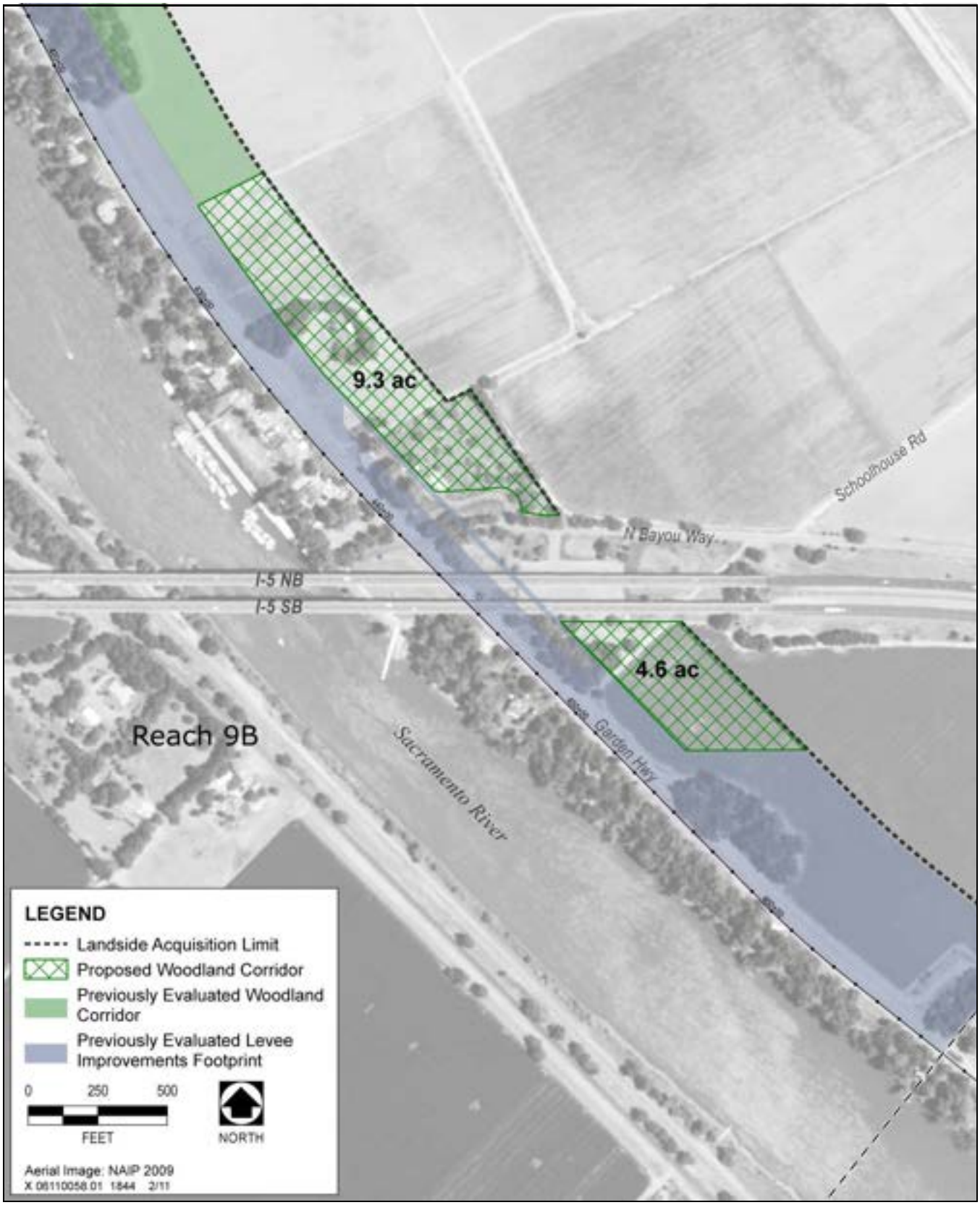
The proposed alignment of the ditch would cross TNBC property, and SAFCA would acquire easements, if necessary, on these parcels. The alignment would start between the existing and new marsh on the Natomas Farms Preserve, head north along the eastern edge of the Souza Preserve, head east along Del Paso Road and head north straight to the West Drainage Canal between the Rosa Central and Rosa East Preserves. The ditch would be approximately 6,300 feet long, 5–6 feet deep, and have a 5-foot-wide bottom and 3H:1V side slopes. Additionally, a drainage ditch would be constructed parallel to and west of a portion of the recirculation ditch from the middle of the Natomas Farms Preserve to the southwest corner of the Rosa East Preserve. The ditch would be approximately 2,400 feet long, 6–8 feet deep, and have a 5-foot-wide bottom and 3H:1V side slopes. A 12-foot-wide access road would be constructed along the east side of the recirculation ditch and an 18-foot-wide access road would be constructed along the west side of the recirculation ditch, except through the Rosa East Preserve, where it would be 12 feet wide on either side.

WOODLAND CORRIDOR EXTENSION

The Phase 3 EIS/EIR (which constitutes the DEIS/DEIR, FEIS, and FEIR) (USACE and SAFCA 2009) evaluated establishment of a woodland corridor in Sacramento River east levee Reaches 8–9A (approximately Station 397+00 to 427+00). This corridor, which would vary in width between 250 to 350 feet, would be extended approximately an additional 3,000 to near the end of Reach 9B (see **Plate 4**), providing approximately an additional 14 acres for preservation of existing woodland (2 to 3 acres) and creation of new woodland from tree planting. In addition, the corridor would provide space for trees transplanted from areas where ground is being cleared for construction of levee improvements. New tree plantings would consist of the same species as described in the Phase 3 EIS/EIR. Portions of the corridor extension could also be used for transplanting valley oak trees from areas where levee improvements are being constructed. The proposed woodland corridor extension would not require any additional land acquisitions or easements beyond those evaluated in the Phase 3 EIS/EIR. However, the Phase 3 EIS/EIR assumed that the proposed site of this extension would remain in agricultural production to provide a buffer area between flood risk reduction facilities and potentially incompatible land uses. Under USACE guidance, tree plantings are considered compatible with flood risk reduction as long as they occur at least 15 feet away from the landside toe of the levee. The proposed woodland planting area would meet this criteria because its western boundary would be separated from the landside toe of the levee by operations and maintenance (O&M) and utility corridors with a total minimum width of 100 feet.

STANDARD FOR PREPARATION OF AN ADDENDUM

Under the State CEQA Guidelines (California Code of Regulations [CCR] Section 15164), an addendum to a previously certified EIR is required when minor changes in the project are proposed, but none of the conditions requiring a subsequent EIR as described in State CEQA Guidelines CCR Section 15162 (or a supplemental EIR under CCR Section 15163) have occurred.



Source: Psomas 2011 HDR 2009, AECOM 2010

Proposed Woodland Corridor Extension **Plate 4**

SUBSEQUENT OR SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORTS

Under the State CEQA Guidelines CCR Section 15162, a subsequent EIR is required whenever any of the following conditions occur:

- substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

- substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

- new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:

    - the project will have one or more significant effects not discussed in the previous EIR or negative declaration;

    - significant effects previously examined will be substantially more severe than shown in the previous EIR;

    - mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

    - mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

ENVIRONMENTAL ANALYSIS

This section of the addendum analyzes the potential effects on the environment of the proposed changes in the Phase 4a Project to determine whether any of the conditions described above that would require preparation of a subsequent or supplemental EIR would occur.

ISSUES NOT ANALYZED FURTHER IN THIS ADDENDUM

The proposed activities constitute a minor change in the approved Phase 4a Project. Implementation of this change would not cause a new significant impact or a substantial increase in the severity or intensity of the impacts identified in the Phase 4a EIS/EIR (SAFCA 2009) for the impacts analyzed for the following issue areas:

- land use, socioeconomics, and population and housing (no inhabited structures or communities would be affected);
- mineral resources (resource not present on land affected by proposed project changes);
- hydrology and hydraulics (no changes to channels surrounding the Natomas Basin and no flood-related impacts);
- paleontological resources (excavation would be too shallow to affect the resource);
- transportation and circulation (no additional use of public roads by construction equipment);
- air quality (substitution of borrow sources, no additional haul truck traffic);
- noise (no sensitive receptors located in the area of proposed project changes);

- visual resources (proposed project changes would be similar to existing uses or previously analyzed changes to the landscape); and
- utilities and service systems (no additional impacts to this resource area).

These issues were fully analyzed in the previously certified EIR. The area of disturbance associated with the proposed modifications to the Phase 4a Project described in this addendum would be very small in relation to the scale of the project. Furthermore, for each significant impact related to construction in these areas, mitigation measures that would apply to the proposed activities have been adopted by SAFCA and incorporated into the project. No new mitigation measures are needed that were not previously identified in the certified EIR and adopted by SAFCA and incorporated into the Phase 4a Project.

ISSUES CARRIED FORWARD FOR FURTHER ANALYSIS IN THIS ADDENDUM

AGRICULTURAL RESOURCES

Table 1 summarizes the impact to Important Farmland that would occur as a result of implementation of the proposed project modifications. This impact was evaluated as Impact 4.2-a, "Conversion of Important Farmland to Nonagricultural Uses," in the Phase 4a EIS/EIR. Previously adopted Mitigation Measure 4.2-a, "Minimize Important Farmland Conversion to the Extent Practicable and Feasible," would be implemented. However, the Phase 4a EIS/EIR concluded that even with implementation of mitigation, this impact would remain significant and unavoidable. Permanent conversion of Important Farmland for the Phase 4a Project was estimated to be approximately 676 acres; for the entire NLIP, the total estimate is approximately 1,800 acres. The additional permanent conversion shown in **Table 1** that would result from implementation of the proposed project modifications is small in comparison—approximately 3 percent of all Important Farmland conversion evaluated as part of the NLIP. Therefore, this contribution would not substantially increase the severity of this previously identified significant and unavoidable impact, nor would it result in new impacts beyond those identified in the Phase 4a EIS/EIR. No further mitigation measures would be required. It should be noted the top soil from the Natomas Farms Preserve site would be preserved to the extent possible and deposited on the adjacent TNBC parcel to the west, where it would be incorporated into the soil to improve agricultural productivity.

Table 1
Important Farmland and Williamson Act Contracted Land Conversion

Project Component/Location	Important Farmland (Acres)	Williamson Act (Acres)
Permanent Conversion		
Woodland corridor extension in Sacramento River east levee Reach 9B	10	6
Managed marsh at TNBC Natomas Farms	38	38
Recirculation Ditch	7	7
Total Permanent Conversion	**55**	**51**

Source: Data compiled by AECOM in 2011

Table 1 also summarizes impacts to Williamson Act contracted lands that would occur as a result of implementation of the proposed project modifications. This impact was evaluated as Impact 4.2-b, "Conflict with Lands under Williamson Act Contracts," in the Phase 4a EIS/EIR. Previously adopted Mitigation Measure 4.2-b, "Minimize Impacts on Agricultural Preserve Land and Williamson Act-Contracted Land; Comply with Government Code Sections 51290-51293; and Coordinate with Landowners and Agricultural Operators," would apply. However, the Phase 4a EIS/EIR concluded that even with implementation of mitigation, this impact would remain significant and unavoidable. Permanent conversion of land under Williamson Act contracts for the Phase 4a Project was estimated to be 216 acres; for the entire NLIP, the total estimate is approximately 600 acres. The

additional conversion shown in **Table 1** that would result from implementation of the proposed project modifications is small in comparison—approximately 9 percent of affected lands identified as part of environmental analysis of the NLIP. Therefore, this contribution would not substantially increase the severity of this previously identified significant and unavoidable impact, nor would it result in new impacts beyond those identified in the Phase 4a EIS/EIR. No further mitigation measures would be required.

GEOLOGY AND SOILS

As described in the analysis for Impact 4.4-a, "Potential Temporary and Permanent Localized Soil Erosion During Construction and Operation," in the Phase 4a EIS/EIR, construction activities, including excavation at borrow sites, would result in the temporary disturbance of soil and could expose disturbed areas to erosion from wind or early-season rainfall events. Ground-disturbing activities associated with construction of the proposed managed marsh at TNBC Farms Preserve; widening and deepening on the west side of Fisherman's Lake, including the addition of a maintenance road; improvements to the Pumping Plant No. 3 intake channel; and construction of the proposed recirculation ditch would contribute to this impact. In addition, borrow activity at the proposed TNBC Natomas Farms managed marsh site and along the west bank of Fisherman's Lake would be subject to regulation under the California Surface Mining and Reclamation Act (SMARA), which would be administered by Sacramento County. The excavation of soil from the TNBC Natomas Farms site would entail the preservation of top soil, which would be used at adjacent land to improve agricultural productivity. Upon completion of soil excavation at the TNBC Natomas Farms Preserve managed marsh site and along the west bank of Fisherman's Lake, these areas would be reclaimed as managed marsh and upland habitat (see **Plate 2**). Implementation of these proposed activities would not result in a substantial increase in the severity or intensity of the previously identified impact, nor would it result in new impacts beyond those identified in the Phase 4a EIS/EIR.

The proposed project modifications would be subject to implementation previously adopted Mitigation Measure 4.4-a(1), "Implement Mitigation Measure 4.6-a, 'Implement Standard Best Management Practices, Prepare and Implement a Stormwater Pollution Prevention Plan, and Comply with National Pollutant Discharge Elimination System Permit Conditions,'" which requires compliance with National Pollutant Discharge Elimination System (NPDES) permit conditions, preparation and implementation of a storm water pollution prevention plan (SWPPP), and implementation of best management practices (BMPs). In addition, a monitoring program would be implemented during and after construction to ensure that the project complies with all applicable standards and that the best management practices (BMPs) are effective. The proposed project modifications would also be subject to Mitigation Measure 4.4-a(2), "Secure and Implement the Conditions of the California Surface Mining and Reclamation Act Permit or Exemption," which would require that conditions contained in the SMARA permit or exemption be implemented. With implementation of this mitigation measure, potential erosion impacts resulting from the proposed project modifications would be reduced to a less-than-significant level. No further mitigation measures would be required.

WATER QUALITY

As described for Impact 4.6-a, "Temporary Effects on Water Quality from Stormwater Runoff, Erosion, and Spills Associated with Construction," in the Phase 4a EIS/EIR, ground-disturbing activities associated with project construction could cause soil erosion and sedimentation of local drainages and waterways. Soils and associated contaminants that could enter receiving waters from stormwater runoff and erosion can increase turbidity, stimulate algae growth, increase sedimentation of aquatic habitat, and introduce compounds that are toxic to aquatic organisms. Ground-disturbing activities associated with construction of the proposed managed marsh at the TNBC Natomas Farms site, widening and deepening on the west side of Fisherman's Lake and installation of an adjacent maintenance road, improvements to the Pumping Plant No. 3 intake channel, and construction of the proposed recirculation ditch, could contribute to this previously disclosed impact by causing the discharge of sediments or contaminants to receiving waters. This temporary impact would be potentially significant, but would not increase the severity or intensity of the previously identified impact, nor would it result in new impacts beyond those identified in the Phase 4a EIS/EIR.

Mitigation Measure 4.6-a, "Implement Standard BMPs, Prepare and Implement a SWPPP, and Comply with NPDES Permit Conditions," from the Phase 4a EIS/EIR would apply to the proposed changes. As required under this mitigation measure, final design and construction plans shall require the implementation of standard erosion, siltation, and good housekeeping BMPs. SAFCA's construction contractor shall be required to prepare a SWPPP and comply with the conditions of the NPDES general stormwater permit for construction activity. The SWPPP, for work conducted under NPDES authorization, shall describe the construction activities to be conducted, BMPs that would be implemented to prevent discharges of contaminated stormwater into waterways, and inspection and monitoring activities that shall be conducted. Implementation of this mitigation measure would reduce water quality impacts from temporary activities to a less-than-significant level. No further mitigation measures would be required.

BIOLOGICAL RESOURCES

Wildlife Corridors

As described in the analysis of Impact 4.7-b of the Phase 4a EIS/EIR, "Impacts on Wildlife Corridors," irrigation/drainage ditches and canals within the project area and larger Natomas Basin serve as critical corridors for movement of aquatic species, particularly GGS. Adverse impacts on these corridors would consist of temporary disturbance and permanent loss of canals, ditches, and their associated habitat values due to filling, redesigning, and reconfiguring these facilities to accommodate project improvements. The proposed project modifications would cause temporary disturbance to the west bank of the Fisherman's Lake channel and to the intake channel of Pumping Plant No. 3 during construction of improvements, which could affect movement of GGS that inhabit these areas. This temporary impact would be potentially significant, but would not increase the severity or intensity of the previously identified impact, nor would it result in new impacts beyond those identified in the Phase 4a EIS/EIR.

Previously adopted Mitigation Measure 4.7-b: Implement Mitigation Measure 4.7-a, "Minimize Effects on Woodland Habitat; Implement all Woodland Habitat Improvements and Management Agreements; Compensate for Loss of Habitat; and Comply with Section 7 of the Federal Endangered Species Act, Section 1602 of the California Fish and Game Code, and Section 2081 of the California Endangered Species Act Permit Conditions," and 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" would apply to the proposed modifications. Implementation of these mitigation measures would reduce temporary impacts on wildlife corridors to a less-than-significant level. No further mitigation measures would be required.

Jurisdictional Waters of the United States

Impact 4.7-c analyzed in the Phase 4a EIS/EIR, "Impacts on Jurisdictional Waters of the United States," identified potential temporary and permanent fill in jurisdictional wetlands as a result of construction activities. The proposed project modifications would not result in permanent fill of jurisdictional waters of the United States. Creation of managed marsh at the TNBC Natomas Farms site and widening of the Fisherman's Lake channel would create additional wetland. However, excavation along the Fisherman's Lake channel and construction of bank improvements along the Pumping Plant No. 3 intake channel could result in temporary fill of these waters from incidental fallback of soil, potentially contributing to this impact. This temporary impact would be potentially significant, but would not increase the severity or intensity of the previously identified impact, nor would it result in new impacts beyond those identified in the Phase 4a EIS/EIR.

Previously adopted Mitigation Measure 4.7-c, "Minimize Effects on Jurisdictional Waters of the United States; Complete Detailed Design of Habitat Creation Components and Secure Management Agreements to Ensure Compensation of Waters Filled; and Comply with Section 404, Section 401, Section 10, and Section 1602 Permit Processes" would apply to the proposed modifications. Implementation of this mitigation measure would reduce

temporary impacts on jurisdictional waters to a less-than-significant level. No further mitigation measures would be required.

Giant Garter Snake Habitat

Impact 4.7-e, "Impacts on Giant Garter Snake Related to Project Construction Activities and Operational Activities of Modified Pumping Plants," analyzed in the Phase 4a EIS/EIR identified potential permanent and temporary loss and disturbance of potential GGS habitat as a result of construction activities. The proposed project modifications would not cause permanent loss of GGS habitat. In fact, creation of managed marsh at the TNBC Natomas Farms site and installation of a tule bench along the west bank of Fisherman's Lake would increase habitat for GGS. However, excavation along Fisherman's Lake and construction of improvements in the Pumping Plant No. 3 intake channel could temporarily disturb GGS habitat. This temporary impact would be potentially significant, but would not increase the severity or intensity of the previously identified impact, nor would it result in new impacts beyond those identified in the Phase 4a EIS/EIR.

Previously adopted Mitigation Measure 4.7-e: Minimize the Potential for Direct Loss of Giant Garter Snake Individuals, Implement All Upland and Aquatic Habitat Improvements and Management Agreements to Ensure Adequate Compensation for Loss of Habitat, and Obtain Incidental Take Authorization," would apply to the proposed modifications. Implementation of this mitigation measure would reduce temporary impacts on GGS and GGS habitat to a less-than-significant level. No further mitigation measures would be required.

Swainson's Hawk Habitat

Impact 4.7-f, "Impacts on Swainson's Hawk and Other Special-Status Birds," analyzed in the Phase 4a EIS/EIR identified the permanent loss of foraging habitat as an impact of constructing levee and habitat improvements. The proposed modifications would contribute approximately up to an additional 38 acres to this loss through the conversion of the TNBC Natomas Farms site from cropland to managed marsh. The establishment of woodlands in Sacramento River east levee Reach 9B would also cause a loss of foraging habitat (up to 10 acres), although it should be noted that the woodlands would increase nesting habitat for Swainson's Hawk and other raptors and also enhance the value of adjacent foraging habitat. This impact would be potentially significant, but would not increase the severity or intensity of the previously identified impact, nor would it result in new impacts beyond those identified in the Phase 4a EIS/EIR.

Previously adopted Mitigation Measure 4.7-f: Minimize Potential Impacts on Swainson's Hawk and Other Special-Status Birds Foraging and Nesting Habitat, Monitor Active Nests during Construction, Implement All Upland and Agricultural Habitat Improvements and Management Agreements to Compensate for Loss of Quantity and Quality of Foraging Habitat, Obtain Incidental Take Authorization, and Implement Mitigation Measure 4.7-a, "Minimize Effects on Woodland Habitat, Implement all Woodland Habitat Improvements and Management Agreements, Compensate for Loss of Habitat, and Comply with Section 7 of the Federal Endangered Species Act, Section 1602 of the California Fish and Game Code, and Section 2081 of the California Endangered Species Act Permit Conditions" would apply to the proposed changes. Implementation of this mitigation measure would reduce impacts on Swainson's hawk habitat to a less-than-significant level. No further mitigation measures would be required.

Other Special-Status Wildlife Species

Impact 4.7-h, "Impacts on Other Special-Status Wildlife Species, Including Burrowing Owl and Northwestern Pond Turtle," analyzed in the Phase 4a EIS/EIR identified the potential destruction of burrows occupied by borrowing owls and potential loss of habitat for northwestern pond turtle. Occupied borrows could be encountered during excavation at the TNBC Natomas Farms site, contributing to this impact. In addition, temporary loss of northwestern pond turtle habitat could occur during construction along the west bank of the Fisherman's Lake channel as well as construction of improvements in the Pumping Plant No. 3 intake channel, although these improvements would increase potential northwestern pond turtle habitat once completed. This impact would be

potentially significant, but would not increase the severity or intensity of the previously identified impact, nor would it result in new impacts beyond those identified in the Phase 4a EIS/EIR. Previously adopted Mitigation Measure 4.7-h, "Conduct Focused Surveys for Northwestern Pond Turtles, Relocate Turtles, Minimize Potential Impacts on Burrowing Owls, and Relocate Owls as Needed," would apply to these proposed changes. Implementation of this mitigation measure would reduce impacts on burrowing owl and northwestern pond turtle habitat to a less-than-significant level. No further mitigation measures would be required.

Implementation of the NBHCP

Impact 4.7-k, "Impacts on Successful Implementation of the NBHCP," analyzed in the Phase 4a EIS/EIR identified the following impacts associated with constructing levee and habitat improvements: impacts on TNBC reserves, impacts on NBHCP-species viability, and impacts on habitat availability. The proposed modifications would convert approximately 40 acres in an existing TNBC reserve from cropland (Swainson's hawk habitat) to managed marsh (GGS habitat). Based on the current value-per-acre, proceeds from the sale of the parcel to SAFCA would contribute funds to TNBC to offset direct impacts to TNBC reserves on an acre-per-acre basis, allowing it to draw upon its existing land surplus. This impact would be potentially significant, but would not increase the severity or intensity of the previously identified impact, nor would it result in new impacts beyond those identified in the Phase 4a EIS/EIR.

Previously adopted Mitigation Measure 4.7-k: Ensure that Project Encroachment Does Not Jeopardize Successful Implementation of the NBHCP and Implement Mitigation Measures 4.7-a "Minimize Effects on Woodland Habitat, Implement all Woodland Habitat Improvements and Management Agreements, Compensate for Loss of Habitat, and Comply with Section 7 of the Federal Endangered Species Act, Section 1602 of the California Fish and Game Code, and Section 2081 of the California Endangered Species Act Permit Conditions" and 4.7-c "Minimize Effects on Jurisdictional Waters of the United States; Complete Detailed Design of Habitat Creation Components and Secure Management Agreements to Ensure Compensation of Waters Filled; and Comply with Section 404, Section 401, Section 10, and Section 1602 Permit Processes," 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," 4.7-f "Minimize Potential Impacts on Swainson's Hawk and Other Special-Status Birds Foraging and Nesting Habitat, Monitor Active Nests during Construction, Implement All Upland and Agricultural Habitat Improvements and Management Agreements to Compensate for Loss of Quantity and Quality of Foraging Habitat, Obtain Incidental Take Authorization, and Implement Mitigation Measure 4.7-a," 4.7-g "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, ' and 4.7-h "Conduct Focused Surveys for Northwestern Pond Turtles, Relocate Turtles, Minimize Potential Impacts on Burrowing Owls, and Relocate Owls as Needed" would apply to the proposed changes. Implementation of this mitigation measure would reduce impacts on the successful implementation of the NBHCP, including encroachment onto TNBC reserves, to a less-than-significant level. No further mitigation measure would be required.

CULTURAL RESOURCES

A cultural resources inventory has not been performed at the TNBC Natomas Farms managed marsh site or within the footprint of the proposed improvements to the Fisherman's Lake channel, the Pumping Plant No. 3 intake channel, or the proposed recirculation ditch. Whether a cultural resources inventory had been conducted or not, it is possible that undiscovered cultural resources in the proposed improvement areas could be damaged by ground-disturbing activities, as described in Impact 4.8-c analyzed in the Phase 4a EIS/EIR, "Potential Damage to or Destruction of Previously Undiscovered Cultural Resources from Ground-Disturbance or Other Construction-Related Activities." If resources discovered during ground-disturbing activities qualify as unique archaeological or historic resources, impacts to undiscovered cultural resources would be significant.

An inventory of cultural resources would be performed within the footprint of these new project features as required under previously adopted Mitigation Measure 4.8-c, "Train Construction Workers before Construction, Monitor Construction Activities, Stop Potentially Damaging Activities, Evaluate Any Discoveries, and Resolve Adverse Effects on Eligible Resources, if Encountered." If cultural resources are found, these resources would be subject to previously adopted Mitigation Measure,, "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." This mitigation measure requires USACE and SAFCA to evaluate identified resources for their eligibility for listing on the California Register of Historical Resources (CRHR) and National Register of Historic Places (NRHP), identify ways to minimize or avoid impacts for significant resources, and to monitor construction in the vicinity of such resources. The Phase 4a EIS/EIR concluded that even with mitigation, impacts on identified cultural resources would remain significant and unavoidable. Because the areas subject to additional ground-disturbing construction identified in this addendum are sensitive for cultural resources, these areas could potentially contribute to this impact. However, these new areas are small in relation to the scale of the larger Phase 4a Project (the new features where ground disturbing work would occur encompass approximately 42 acres, or roughly 10% of the 415.7 acres of permanent and temporary impacts previously identified in the Phase 4a Project). Therefore, this contribution would not substantially increase the severity of this significant and unavoidable impact, nor would it result in new impacts beyond those identified in the Phase 4a EIS/EIR.

Where cultural resources are buried below sterile soils or where prehistoric mound sites have been truncated with no surface manifestation, discovery prior to construction or other ground-disturbing activities is not always possible. If such resources constitute unique archaeological or historical resources, impacts to such resources would be significant and would contribute to the project's overall impact on previously unidentified resources described in the Phase 4 EIS/EIR, Impact 4.8-c, "Potential Damage to or Destruction of Previously Undiscovered Cultural Resources from Ground-Disturbance or Other Construction-Related Activities." The Phase 4a EIS/EIR concluded that this impact would remain significant and unavoidable after mitigation. However, as described above, because the new areas subject to construction are small in relation to the scale of the Phase 4a Project, this contribution would not substantially increase the severity of this impact, nor would it result in new impacts beyond those identified in the Phase 4a EIS/EIR.

A cultural resources inventory has been conducted in the area proposed for the woodland corridor extension. No unique archaeological or historic resources have been identified within this footprint (USACE 2009, 2010). Therefore the extension of the woodland corridor would have no impact on identified cultural resources. While the replanting of trees in the extended woodland corridor could have impacts on previously unidentified cultural resources, this impact was previously identified in the Phase 4a EIS/EIR as described above. Because the proposed woodland corridor extension is small in relation to the scale of the Phase 4a project (14 acres or roughly 3% of the previously identified temporary and permanent impacts), this proposed project modification would not substantially increase the severity of this significant and unavoidable impact, nor would it result in new significant impacts beyond those identified in the Phase 4a EIS/EIR. No further mitigation measures would be required.

HAZARDS AND HAZARDOUS MATERIALS

No hazardous waste sites, subject to listing by the State Water Resource Control Board or the California Department of Toxic Substances Control, are located within the parcels that would be affected by construction of the proposed managed marsh at TNBS Natomas Farms, Fisherman's Lake channel widening and maintenance road, Pumping Plant No. 3 Channel improvements, Fisherman's Lake recirculation ditch, or the woodland corridor extension (Sacramento River east levee Reach 9B). At the time of release of the Phase 3 EIS/EIR (USACE and SAFCA 2009) and Phase 4a EIS/EIR, only one parcel that would be affected by the proposed project refinements, APN 201-0280-037, located north of I-5, was the subject of a Phase I Environmental Site Assessment (ESA) to determine the presence of hazardous or potentially hazardous conditions. The ESA found evidence that the previous landowners of this site may have installed a 100-gallon underground storage tank. However previously adopted Mitigation Measure 4.18-b(1) from the Phase 3 EIS/EIR (USACE and SAFCA

2009: 4-18-2) required compliance with any recommendation in the subsequent Phase II ESA that the potential underground storage tank be properly abandoned before the start of construction activities (Kleinfelder 2008).

Parcels associated with the proposed improvements addressed by this addendum have been used for agricultural purposes and may contain hazardous materials, such a residual pesticides, herbicides, and agriculture-related structures (e.g., asbestos-containing pipelines), as described in Impact 4.18 of the Phase 3 EIS/EIR (USACE and SAFCA 2009:4.18-2), "Exposure to Hazardous Materials Encountered at Project Sites," and Impact 4.15-b of the Phase 4a EIS/EIR, "Exposure to Hazardous Materials at Encountered at Project Sites." This impact would be potentially significant, but the proposed project modifications would not increase the severity or intensity of the previously identified impact, nor would it result in new impacts beyond those identified in the Phase 4a EIS/EIR. The following previously adopted mitigation measures would apply to the proposed modifications:

- Mitigation Measure 4.18-b(1) from the Phase 3 EIS/EIR (USACE and SAFCA 2009:4.18-4), "Complete Recommendations Included in Phase I and/or II ESAs and Implement Require Measures;" Mitigation Measure 4.18-b(2), "Complete Investigations Related to the Extent to Which Soil and/or Groundwater May Have Been Contaminated in Areas Not Covered by the Phase I and II ESAs and Implement Required Measures;" and

- Mitigation Measure 4.15-b(2) from the Phase 4a EIS/EIR (USACE and SAFCA 2009:4.15-6), "Complete Investigation Related to the Extent to Which Soil and/or Groundwater May Have been Contaminated in Areas Not Covered by the Phase I and/or II ESAs and Implement Required Measures (e.g., Site Management and/or Other Contingency Plan)."

SAFCA is required to ensure that the contractor complete the mitigation measures listed above before the start of earth-moving activities. If hazardous materials are found, a site plan would be prepared, and hazardous materials would be removed and properly disposed of by licensed contractors in accordance with Federal, state, regional, and local laws and regulations. These activities would reduce the potential risk exposure to hazardous materials encountered at project sites to a less-than-significant level. No further mitigation measures would be required.

IMPACT CONCLUSION

This addendum demonstrates that the proposed modifications to the Phase 4a Project would not involve any of the conditions that require preparation of a subsequent or supplemental EIR would occur in association with the proposed modifications, no further documentation is required. The proposed modifications would not require major revisions to the Phase 4a EIS/EIR because of new or substantially increased significant environmental effect. No changes exist with respect to the circumstances under which the proposed project modifications would be undertaken that would require major revisions to the Phase 4a EIS/EIR because of new or substantially increased significant environmental effects. Moreover, there has been no discovery of new information of substantial importance that would trigger or require major revisions to the Phase 4a EIS/EIR because of new or substantially increased significant environmental effects. Therefore, no subsequent or supplemental EIR is required before approval of the activities proposed in this addendum.

REFERENCES CITED

Kleinfelder. 2008 (July 15). *Natomas Levee Improvement Program (NLIP) Initial Site Survey (ISS) and Phase I Environmental Site Assessment (ESA)*. Prepared for SAFCA. Sacramento, CA.

U.S. Army Corps of Engineers and Sacramento Area Flood Control Agency. 2009 (August). *Draft Environmental Impact Statement/Draft Environmental Impact Report on the Natomas Levee Improvement Program, Phase 3 Landside Improvements Project*. State Clearinghouse No. 2008072060. Sacramento, CA. Prepared by EDAW, Sacramento, CA.

U.S. Army Corps of Engineers. 2009. *Cultural Resources Inventory Report, Phase 3 Natomas Levee Improvements Program, Landside Improvements Project*. Sacramento, California.

———. 2010. *Cultural Resources Inventory Report, Phase 3 and Phase 4a, Addendum 1 Natomas Levee Improvement Program Landside Improvements Project*. Sacramento, California.

USACE and SAFCA. *See* U.S. Army Corps of Engineers and Sacramento Area Flood Control Agency.