EXHIBIT A
Addendum No. 5 to the
Environmental Impact Report on the

Natomas Levee Improvement Program
Phase 4a Landside Improvements Project

Prepared for:

Sacramento Area Flood Control Agency

November 2018

State Clearinghouse No. 2009032097

Prepared by:

GEI Consultants

Consulting Engineers and Scientists

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Abbreviations and Acronyms

CEQA	California Environmental Quality Act
CVFPB	Central Valley Flood Protection Board
Draft EIS/EIR	Draft Environmental Impact Statement/Environmental Impact Report
EIR	Environmental Impact Report
FEMA	Federal Emergency Management Agency
GGS	Giant garter snake
MMRP	Mitigation Monitoring and Reporting Program
NCMWC	Natomas Central Mutual Water Company
NHPA	National Historic Preservation Act
NEMDC	Natomas East Main Drainage Canal
NRHP	National Register of Historic Places
RD 1000	Reclamation District 1000
SAFCA	Sacramento Area Flood Control Agency
SCAS	Sacramento County Airport System
USACE	U.S. Army Corps of Engineers

1. Introduction

This Addendum No. 5 to the Final Environmental Impact Report for the Natomas Levee Improvement Program (NLIP), Phase 4a Landside Improvements Project (Phase 4a Project) (State Clearinghouse No. SCH 2009032097) (SAFCA 2009), addresses proposed minor modifications and refinements to the improvements proposed in Reach B on the Sacramento River East Levee. These proposed minor modifications and refinements are the following: using seepage berms only, rather than cutoff walls and seepage berms, on levee improvements in Reaches B:12B-15; adjusting the configuration of the woodland mitigation site in Reach B; and modifying the realignment of the Riverside Canal, including an underground pipeline between Radio Road and Farm Road.

2. Summary of Previous Environmental Review Process

On August 28, 2009, USACE and SAFCA issued the Phase 4a Draft EIS/EIR for public review and comment. Following public review, SAFCA published the Final EIR on November 3, 2009, containing responses to comments and a mitigation monitoring and reporting program (MMRP). The MMRP included mitigation measures addressing the project's potentially significant impacts on the environment, including agricultural resources, biological and cultural resources, traffic, hydrology, water quality, air quality, noise, and hazards. The SAFCA Board of Directors certified the EIR in October 2009 and approved the Phase 4a Project on November 13, 2009. A Notice of Determination was filed on November 16, 2009 (State Clearinghouse No. 2009032097). Separately, USACE prepared a Final EIS that was issued for public review in February 2010. The USACE Record of Decision was published in November 2010. The Draft and Final EIS/EIR are available at SAFCA's offices at 1007 7th Street, 7th Floor, Sacramento, CA 95814, and online at SAFCA's Web site (http://www.safca.org/Programs_Natomas.html).

Table 1 contains a summary of previous environmental documentation prepared for the NLIP, and identifies specific analysis topics relevant to the proposed project refinements and modifications analyzed in this Addendum No. 5 to the EIR for the Phase 4a Project.

Table 1. Natomas Levee Improvement Program Environmental Documentation

Document Title	Related Project Refinements and Modifications
Environmental Impact Report on Local Funding Mechanisms for Comprehensive Flood Control Improvements for the Sacramento Area. (2007 Landside EIR) SCH 2006072098 (February 2007)	Not related to project refinements and modifications analyzed in this Addendum.

Table 1. Natomas Levee Improvement Program Environmental Documentation

Document Title	Related Project Refinements and Modifications
Environmental Impact Report on the Natomas Levee Improvement Program Landside Improvements Project. (Phase 2) SCH 2007062016 (November 2007)	Not related to project refinements and modifications analyzed in this Addendum.
Supplement to the Environmental Impact Report on the Natomas Levee Improvement Program Landside Improvements Project—Phase 2 Project. SCH 2007062016. (January 2009)	Not related to project refinements and modifications analyzed in this Addendum.
Environmental Impact Report on the Natomas Levee Improvement Program Phase 3 Landside Improvements Project. SCH 2008072060 (May 2009)	Not related to project refinements and modifications analyzed in this Addendum.
Addendum to the Environmental Impact Report on the Natomas Levee Improvement Program, Landside Improvements Project – Phase 2 Project. SCH 2007062016 (June 2009)	Not related to project refinements and modifications analyzed in this Addendum.
2nd Addendum to the Environmental Impact Report on the Natomas Levee Improvement Program, Landside Improvements Project – Phase 2 Project. SCH 2007062016 (August 2009)	Not related to project refinements and modifications analyzed in this Addendum.
Addendum to the Environmental Impact Report on the Natomas Levee Improvement Program, Landside Improvements Program Phase 3 Landside Improvements Project. SCH 2008072060 (September 2009)	Clear landside vegetation in a 670-foot-wide corridor to prepare for future work, in Reach B:10-12A of the Sacramento River east levee. *Project modifications and refinements include construction of seepage berm within the cleared corridor.*
Environmental Impact Report on the Natomas Levee Improvement Program Phase 4a Landside Improvements Project. SCH 2009032097 (November 2009)	Construct an adjacent levee in Reach B:10-15. Use cutoff walls, seepage berms, and relief wells for seepage remediation. Potential 24/7 cutoff wall construction. *Project modifications and refinements include use of seepage berms in place of cutoff walls in these reaches.* Relocate the Riverside Canal east of the adjacent levee in Reach B:13-15 and east of the adjacent levee, residences, and tree groves in Reach B:15-17. Construct a piped section in Reach B:15-18B at the toe of the new adjacent levee. *Project modifications and refinements include shifting the alignment of the relocated Riverside Canal eastward, and constructing a buried pipeline from Radio Road to Farm Road.*
Environmental Impact Statement/Final Environmental Impact Report on the American River Watershed Common Features Project/Natomas Post-authorization Change Report/Natomas Levee Improvement Program, Phase 4b Landside Improvements Project. SCH 2009112025 (October 2010)	Not related to project refinements and modifications analyzed in this Addendum.
Addendum to the Environmental Impact Report on the Natomas Levee Improvement Program, Phase 4a Landside Improvements Project. SCH 2009032097 (February 2011)	Analyzed woodland habitat creation and preservation corridor (250-350 feet wide) in Reach B:9B. *Project modifications and refinements include a wider and shorter woodland habitat.*
2nd Addendum to the Environmental Impact Report on the Natomas Levee Improvement Program, Landside Improvements Program Phase 3 Landside Improvements Project.	Not related to project refinements and modifications analyzed in this Addendum.

Table 1. Natomas Levee Improvement Program Environmental Documentation

Document Title	Related Project Refinements and Modifications
SCH 2008072060 (August 2011)	
2nd Addendum to the Environmental Impact Report on the Natomas Levee Improvement Program, Phase 4a Landside Improvements Project. SCH 2009032097 (April 2012)	Not related to project refinements and modifications analyzed in this Addendum.
3rd Addendum to the Environmental Impact Report on the Natomas Levee Improvement Program, Phase 4a Landside Improvements Project. SCH 2009032097 (July 2012)	Not related to project refinements and modifications analyzed in this Addendum.
Supplemental Environmental Impact Report No. 2 for the Natomas Levee Improvement Program Landside Improvements Project (Phase 2) SCH 2007062016 (October 2012)	Not related to project refinements and modifications analyzed in this Addendum.
3rd Addendum to the Environmental Impact Report on the Natomas Levee Improvement Program, Landside Improvements Program Phase 3 Landside Improvements Project. SCH 2008072060 (July 2014)	Not related to project refinements and modifications analyzed in this Addendum.
4th Addendum to the Environmental Impact Report on the Natomas Levee Improvement Program, Landside Improvements Program Phase 3 Landside Improvements Project. SCH 2008072060 (May 2017)	Not related to project refinements and modifications analyzed in this Addendum.
Addendum to the Environmental Impact Report on the American River Watershed Common Features Project/Natomas Post-authorization Change Report/Natomas Levee Improvement Program, Phase 4b Landside Improvements Project. SCH 2009112025 (April 2018)	Not related to project refinements and modifications analyzed in this Addendum.
2nd Addendum to the Environmental Impact Report on the American River Watershed Common Features Project/Natomas Post-authorization Change Report/Natomas Levee Improvement Program, Phase 4b Landside Improvements Project. SCH 2009112025 (April 2018)	Not related to project refinements and modifications analyzed in this Addendum.

3. Summary of the Phase 4a Project

The Phase 4a project includes the following actions:

- Construct an adjacent levee in Reach B:10-15. Use cutoff walls, seepage berms, and relief wells for seepage remediation.

- Install cutoff wall in the adjacent levee in Reach C:4B.

- Raise the Natomas Cross Canal south levee, flatten slopes, install cutoff wall, and modify or replace existing pumps and motors to raise discharge pipes above 200-year elevation, at the Natomas Central Mutual Water Company (NCMWC) Bennett and Northern Main Pump Stations.

- Raise the NCMWC Riverside Pumping Plant's discharge pipes above the 200-year water surface elevation and modify or replace existing pumps and motors to accommodate the raised discharge pipes.

- Raise discharge pipes, and upgrade motors and pumps at nine private river pumps on Reaches D:1, C:1-2, and B:11A-12A.

- Remove pump, intake, and support structure at South Lauppe Pump. Reconstruct following separate USACE bank protection project.

- Extend the relocated Riverside Canal upstream of Powerline Road in Reach B:11B-12B; relocate the canal east of the adjacent levee in Reach B:13-15 and east of the adjacent levee, residences, and tree groves in Reach B:15-17. Construct a piped section in Reach B:15-18B at the toe of the new adjacent levee.

- Raise NCMWC's Riverside Pumping Plant's discharge pipes above the 200-year water surface and modify or replace existing pumps and motors to accommodate the raised discharge pipes. In-water construction could include use of dredge pumps so that new pumps could be installed, but no cofferdam dewatering.

- Raise discharge pipes above the 200-year water surface at Reclamation District (RD) 1000 Pumping Plant Nos. 3 and 5, extend pipes to tie into existing discharge pipes within the waterside bench, replace or modify pumps and motors. Seepage remediation includes relocating landside stations away from the levee.

- Clear landside vegetation in Reach B12B-15 of the Sacramento River east levee, in a 660-foot wide corridor to prepare for project work.

- Establish 140 acres of agricultural upland habitat at Fisherman's Lake Borrow Area, establish perennial native grasses on levee slopes, seepage berms, and access and maintenance areas; create up to 120 acres of managed seasonal and perennial marsh; and establish native riparian and woodland habitats along the landside of the Sacramento River east levee.

- Abandon approximately 13 agricultural wells and replace, in locations, outside the project footprint. Construct five new wells to provide water supply for habitat mitigation features.

- Realign and relocate irrigation and drainage canals, utility poles, and other infrastructure.

- Remove encroachments to meet Central Valley Flood Protection Board (CVFPB), USACE, and Federal Emergency Management Agency (FEMA) requirements.

- Exchange lands with Sacramento County Airport System (SCAS) in Reaches C:4A and B:5B-6.

- Acquiring right-of-way to construct, operate, and maintain the improvements.

4. Modifications and Refinements to the Project

The minor project refinements listed below would result in no new environmental impacts and would not increase the intensity or severity of impacts previously evaluated in the EIR. Figure 1 illustrates the locations of the modified improvements described below.

- Seepage remediation in Reach B:12B through B:15 would include only seepage berms, instead of a combination of seepage berms and cutoff walls, as described in the Phase 4a and Phase 4b EIRs. The seepage berms are expected to extend up to 150 feet from the landside toe of the adjacent levee. Depending upon the width and the geotechnical characteristics of the levee foundation materials, maximum thickness would range from 5 to 7 feet. All berms would gradually slope downward and away from the levee to about 4 feet thick at the outside edge, with a 3H:1V slope to ground level. A graveled patrol road would be constructed near the outside edge of the seepage berm. Foundation preparation for the seepage berm would include stripping surface soils to a depth of between 0.5 and 1.0 feet.

  Because the seepage berms would be constructed entirely within the "maximum limits of flood damage reduction components" identified and analyzed as areas of impact in the Phase 4a EIR and the construction methods and materials required to construct the revised alignment would be unchanged from the Phase 4a EIR, these changes would not result in increased impacts compared to those described in the Phase 4a EIR. Using seepage berms instead of cutoff walls would reduce or avoid impacts on known cultural resource sites.

- The Riverside Canal realignment would be modified from that described in the Phase 4a EIR. The surface canal would be constructed from the RD 1000 Pumping Plant 3 site to Radio Road according to the methods described in the Phase 4a EIR, but with slight alterations to the alignment to move it slightly eastward from the toe of the levee and seepage berm. The proposed canal would still be constructed within the "maximum limits of flood damage reduction components" identified and analyzed as areas of impact in the Phase 4a EIR.

  From Radio Road to Farm Road, the replacement irrigation water conveyance facility is expected to be a buried pipeline, instead of a surface canal as analyzed in the Phase 4a EIR. Pipeline construction would be as described in the Phase 4a EIR for other segments of the Riverside Canal relocation, and would include excavating open trench, laying pipes (estimated at 24- to 48-inch-diameter) and backfilling to provide adequate cover material. Turnouts and inlet/outlet structures would be constructed as described in the Phase 4a EIR.

  Because the realigned surface canal and pipeline would be within the "maximum limits of flood damage reduction components" identified in the Phase 4a EIR and the construction methods and materials required to construct the revised alignment would be unchanged from the Phase 4a EIR, these changes would not result in increased impacts compared to those described in the Phase 4a EIR. Because the buried pipeline would result in reduced land area devoted to the canal (and an

increased area available for woodland and other habitat mitigation) these changes could reduce impacts compared to those described in the Phase 4a EIR.

The realigned Riverside Canal was identified as potential giant garter snake (GGS) mitigation in the Phase 4a EIR. Although use of a pipeline rather than a canal for approximately 1 mile of the realigned Riverside Canal would reduce the amount of surface canal available to serve as mitigation for impacts to GGS, the reduction would be less than 2 acres, and there are currently more than 78 acres of excess GGS habitat mitigation available as part of NLIP. Therefore, this project modification would not result in any new significant impacts or more severe effects than those described in the Phase 4a EIR.

- The proposed woodland mitigation area would be adjusted in Reaches B:12B through B:15. Because of changes to the Riverside Canal alignment, a wider and longer corridor (up to 500 feet wide, rather than the 100-200 foot wide corridor identified in the Phase 4a EIR) is available for planting. The woodland mitigation would also extend to about 500 feet south of Farm Road, rather than to Radio Road as identified in the Phase 4a EIR. The revised footprint for the woodland mitigation would occupy approximately 50.6 acres on the west side of the Riverside Canal alignment, and approximately 20.3 acres on the east side of the Riverside Canal. The Phase 4a EIR identified a total of 58 acres of woodland mitigation.

  Because the area proposed for the woodland mitigation falls entirely within the impact footprint for the "maximum limits of flood damage reduction components" and borrow sites identified within the Phase 4a EIR as being subject to agricultural resources and habitat impacts, this change would not result in increased impacts beyond those identified in the Phase 4a EIR, including impacts on agricultural resources and biological resources.

- The Phase 4a EIR identifies construction of levee improvements in Reach B and the realignment of the Riverside Canal during 2010 and 2011. These improvements are now proposed for 2020 and 2021. This change in timing would not result in greater impacts (including cumulative impacts) than those considered in the Phase 4a EIR). Although approximately 9 miles of levee improvements associated with the American River Common Features General Reevaluation Report (ARCF GRR) could occur on the SREL south of downtown Sacramento over five construction seasons between 2019 and 2024, the cumulative effects would be similar to or less than those already considered in the Phase 4a EIR. The Phase 4a EIR evaluated the potential for Phase 2 construction and up to 30% of the construction associated with Phase 3 to occur simultaneously with the work included in the Phase 4a EIR. The air quality and other regional impacts of a single year of the five year construction schedule on the ARCF GRR SREL improvements would be less than those for the Phase 2 and 30% of the Phase 3 NLIP projects, and more local impacts such as traffic would be less, due to the reduced travel overlap with the ARCF GRR improvements compared to the Phase 2 and 3 Projects, which would be constructed in the Natomas Basin.

The proposed project modifications and refinements would not cause any new significant or potentially significant impacts or a substantial increase in the intensity or severity of the impacts analyzed and disclosed in the prior EIR for the following topic areas, because the proposed modifications and refinements would not increase the project footprint, the duration of construction, or include other changes to construction with the potential to increase environmental effects:

- Agricultural Resources
- Land Use, Socioeconomics, and Population and Housing

- Geology, Soils, and Mineral Resources
- Hydrology and Hydraulics
- Water Quality
- Biological Resources
- Cultural Resources
- Paleontological Resources
- Transportation and Circulation
- Air Quality
- Noise
- Recreation
- Visual Resources
- Utilities and Service Systems
- Hazards and Hazardous Materials
- Environmental Justice

5. Standard for Preparation of an Addendum

If, after adoption of an EIR, altered conditions or changes or additions to a project are proposed, the State CEQA Guidelines provide three ways to address these changes: a Subsequent EIR (Section 15162), a Supplemental EIR (Section 15163), or an Addendum (Section 15164).

State CEQA Guidelines Section 15162[1] describe the conditions when preparing a Subsequent EIR is required.[2] A Subsequent EIR is appropriate if the lead agency determines, on the basis of substantial evidence in light of the whole record, that one or more of the following conditions is met:

- Substantial changes are proposed in the project which will require major revisions of the previous EIR 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 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, shows any of the following:

[1] See State CEQA Guidelines, Section 15162(a)(1)-(3).

[2] A Supplemental EIR is required if any of the conditions described in Section 15162 would require preparation of a Subsequent EIR, but only minor additions or changes would be necessary to make the previous EIR adequate. State CEQA Guidelines, Section 15163(a)(1)-(2).

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

State CEQA Guidelines Section 15164 states that a lead agency may prepare an Addendum to a certified EIR if some changes or additions are necessary, but none of the conditions described above in Sections 15162 or 15163 calling for the preparation of a Subsequent or Supplemental EIR have occurred.

As explained in the analysis in Section 6, "Environmental Analysis," the proposed minor modifications and refinements to the project would not:

- result in any new significant or potentially significant environmental effects, or
- result in a substantial increase in the intensity or severity of previously identified significant or potentially significant effects.

In addition, no new information of substantial importance has arisen that shows that:

- the project would have new significant or potentially significant effects,
- the project would have substantially more intense or severe effects,
- mitigation measures previously found to be infeasible would in fact be feasible, or
- mitigation measures that are considerably different from those analyzed in the EIR would substantially reduce one or more significant or potentially significant effects on the physical environment.

Because none of the conditions described in Section 15162 of the State CEQA Guidelines calling for preparation of a Subsequent EIR have occurred, an Addendum to the EIR, consistent with Section 15164 of the State CEQA Guidelines, is the appropriate CEQA document to evaluate the proposed modifications and refinements to the project and substantiate that none of the conditions described in Section 15162 have occurred.

6. Conclusions

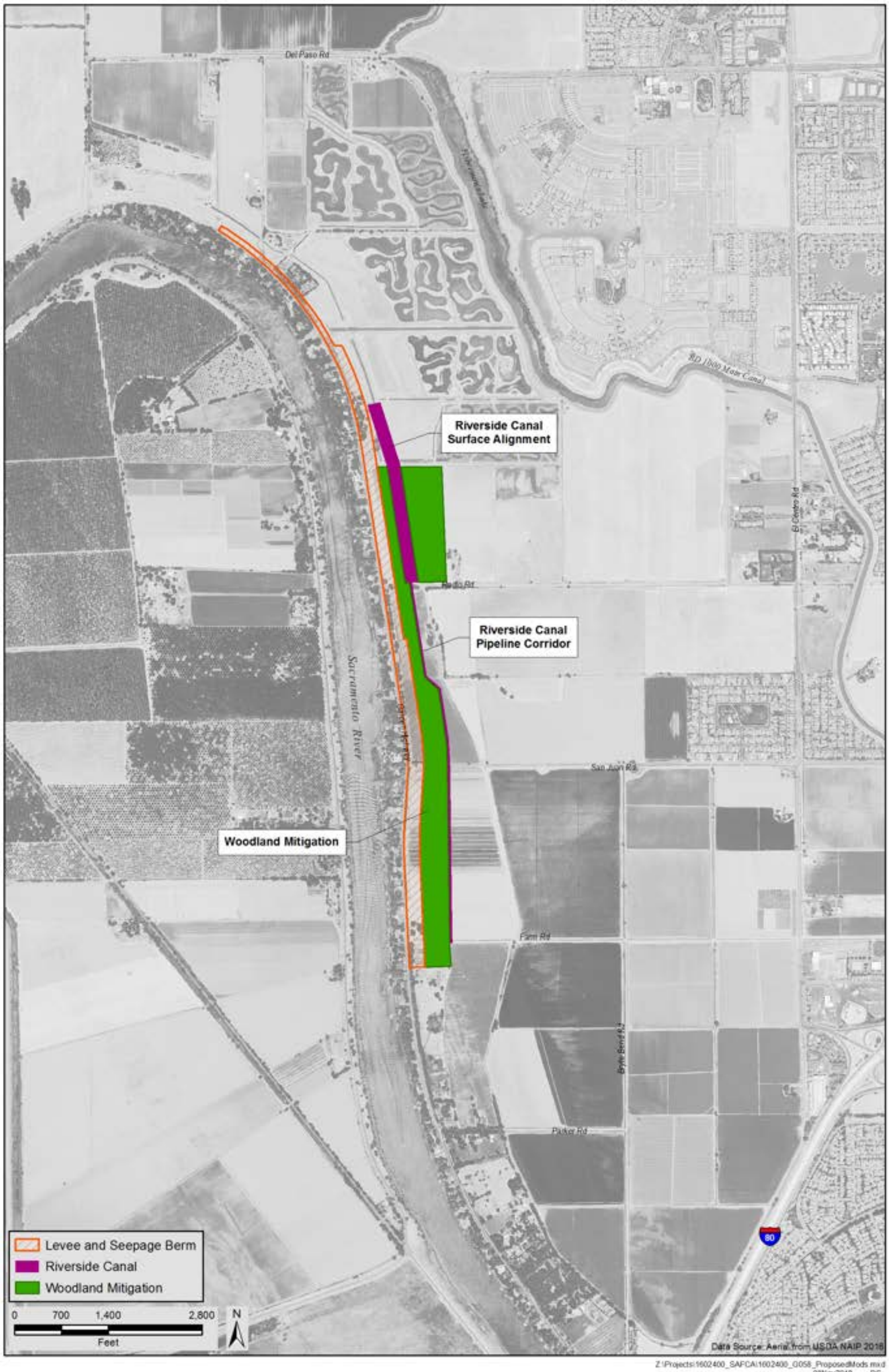
As described in the preceding sections, the proposed minor modifications and refinements to the project do not require major revisions to the prior EIR because no new or substantially more intense or severe significant environmental impacts or potentially significant environmental impacts would result from the proposed modifications and refinements to the project. Section 15162 thresholds would not be triggered.

Based on the analysis in Section 4, "Modifications and Refinements to the Project," the proposed modifications and refinements to the project as described in this Addendum would not result in any of the conditions described in Section 15162 of the State CEQA Guidelines calling for preparation of a Subsequent EIR or Supplemental EIR. In summary, the proposed modifications and refinements to the project would not

- result in any new significant or potentially significant environmental effects,
- substantially increase the intensity or severity of previously identified effects,
- result in mitigation measures or alternatives previously found to be infeasible becoming feasible, or
- result in availability/implementation of mitigation measures or alternatives that are considerably different from those analyzed in the prior EIR that would substantially reduce one or more significant or potentially significant effects on the physical environment.

These conclusions confirm that a Subsequent or Supplemental EIR is not warranted, and this Addendum No. 5 to the prior EIR pursuant to State CEQA Guidelines Section 15164 is the appropriate CEQA document to evaluate and document the modifications and refinements (i.e., modifications to the realignment of the Riverside Canal, modifications to the timing of construction, and modifications to the size and location of woodland mitigation sites) to the project, and resulting impacts thereof. No changes are needed to the certified EIR or the adopted MMRP for the project.

Figure 1: Proposed Modifications and Refinements



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