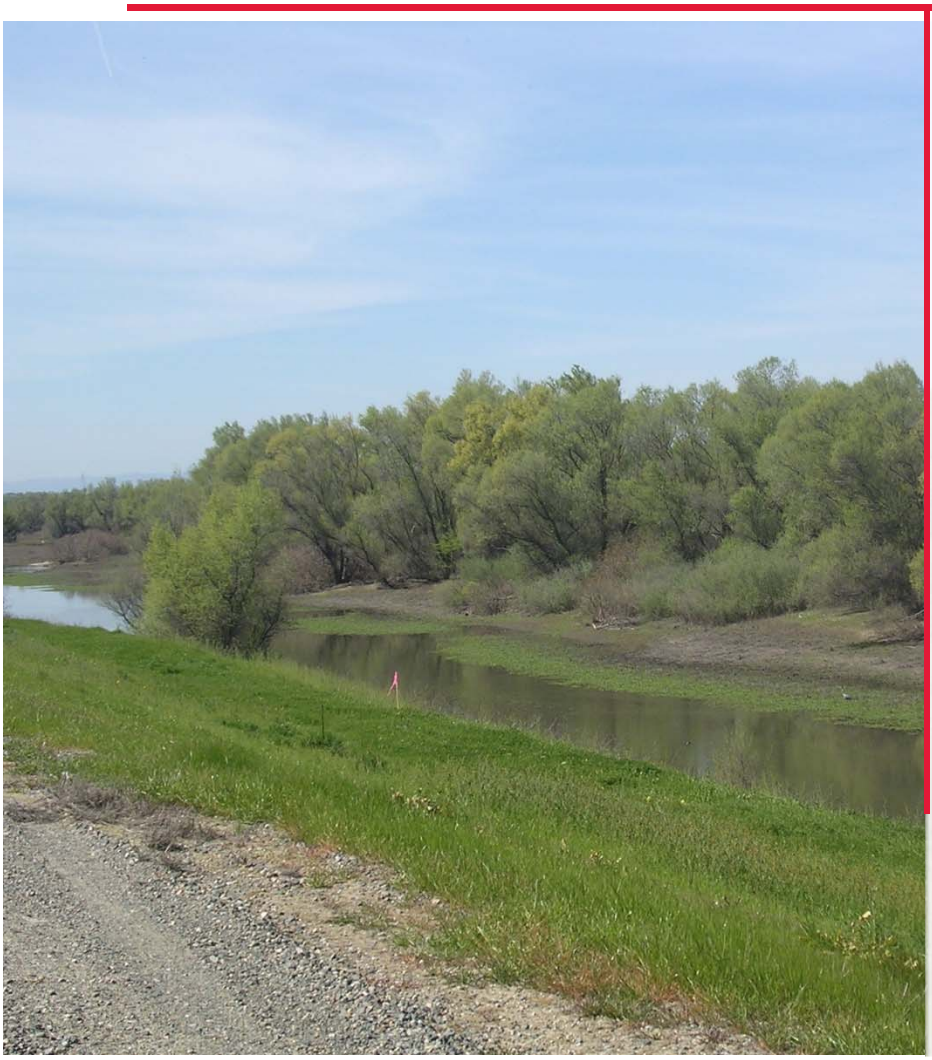
EXHIBIT A

Addendum No. 1 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



Prepared for:

Sacramento Area Flood Control Agency

April 2018

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Consulting Engineers and Scientists

Addendum No. 1 to the Environmental Impact Report for

American River Watershed Common Features Project/ Natomas Post-authorization Change Report/Natomas Levee Improvement Program Phase 4b Landside Improvements Project

State Clearinghouse No. 2009112025

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Project No. 1602400

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Addendum No. 1 to the Environmental Impact Report for the Natomas Levee Improvement Program Phase 4b Landside Improvements Project

1. Introduction

This Addendum No. 1 to the Final Environmental Impact Report (Final EIR) for the American River Watershed Common Features Project/Natomas Post-authorization Change Report/Natomas Levee Improvement Program (NLIP), Phase 4b Landside Improvements Project (Phase 4b Project) (State Clearinghouse No. 2009112025) (SAFCA 2010), addresses proposed modifications and refinements to the improvements proposed in Reach D on the Natomas Cross Canal (NCC) South Levee. These proposed modifications and refinements include removal of the Bennett and Northern Main Pumping Plants, improvements at Pumping Plant No. 4, relocation of the Vestal Drain, and adjustments to access and staging areas, all as described in more detail in Section 3, below. Exhibits illustrating the proposed changes are provided in Attachment A.

2. Summary of Previous Environmental Review Process

The U.S. Army Corps of Engineers (USACE), Sacramento District, as lead agency under the National Environmental Policy Act (NEPA), and the Sacramento Area Flood Control Agency (SAFCA), as lead agency under the California Environmental Quality Act (CEQA),[1] prepared a joint Draft Environmental Impact Statement/Environmental Impact Report (Draft EIS/EIR) for the American River Watershed Common Features Project/Natomas Post-authorization Change Report/NLIP, Phase 4b Project, and distributed the Draft EIS/EIR on July 2, 2010 (SAFCA 2010) for a 45-day public review period. Four public meetings were held in Sacramento and in the Natomas Basin during the public comment period.

The public comment period on the Draft EIS/EIR ended on August 16, 2010. A Final EIS/EIR document was published by SAFCA on October 22, 2010, and certified by the SAFCA Board of Directors on November 12, 2010. The Draft and Final EIS/EIRs are available at SAFCA's offices at 1007 7th Street,

[1] CEQA is found at California Public Resources Code [PRC], Sections 21000 et seq., and the State CEQA Guidelines are found at California Code of Regulations [CCR], Title 14, Section 15000 et seq.

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 project refinements and modifications analyzed in this Addendum No. 1 to the EIS/EIR for the Phase 4b 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)	Analyzed outfall pipe raising at Pumping Plant No. 4. *Project modifications and refinements would include further improvements at Pumping Plant No. 4.* Analyzed material hauling on various project roadways. *Project modifications and refinements include hauling of additional material between the Brookfield borrow site and work areas.*
Environmental Impact Report on the Natomas Levee Improvement Program Landside Improvements Project. (Phase 2) SCH 2007062016 (November 2007)	Analyzed a project footprint that includes proposed staging areas near where Garden Highway crosses Sankey Road, and adjacent to Northern Main Pumping Plant, Bennett Pumping Plant, and Pumping Plant No. 4. *Project modifications and refinements specifically identify these areas for staging.* Analyzed use of the area between the existing Vestal Drain as a staging area. *Project modifications and refinements include stockpiling material in this staging area.* Analyzed material hauling on various project roadways. *Project modifications and refinements include hauling of additional material between the Brookfield borrow site and work areas.* Analyzed use of borrow material from the Brookfield borrow site. *Project modifications and refinements include use of additional material from the Brookfield borrow site.*
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)	Analyzed landside improvements to Pumping Plant No. 2. *Project modifications and refinements would include similar improvements at Pumping Plant No. 4.* Analyzed material hauling on various project roadways. *Project modifications and refinements include hauling of additional material between the Brookfield borrow site and work areas.* Analyzed use of borrow material from the Brookfield borrow site. *Project modifications and refinements include use of additional material from the Brookfield borrow site.*
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)	Analyzed replacement of outfall structure at Pumping Plant No. 4, including dewatering and cofferdam. *Project modifications and refinements would include further improvements at Pumping Plant No. 4.*

Table 1. Natomas Levee Improvement Program Environmental Documentation

Document Title	Related Project Refinements and Modifications
Addendum to the Environmental Impact Report on the Natomas Levee Improvement Program, Landside Improvements Program Phase 3 Landside Improvements Project. SCH 2008072060 (September 2009)	Not related to project refinements and modifications analyzed in this Addendum.
Environmental Impact Report on the Natomas Levee Improvement Program Phase 4a Landside Improvements Project. SCH 2009032097 (November 2009)	Analyzed removal of structures within levee section, installation of cutoff wall, and levee raising at the former Northern Main and Bennett Pumping Plants. *Project modifications and refinements would include filling valve box structures with rip rap, grade adjustments, removal of waterside ramps, and rock at waterside toe.* Analyzed material hauling on various project roadways. *Project modifications and refinements include hauling of additional material between the Brookfield borrow site and work areas.* Analyzed use of borrow material for improvements along the NCC south levee. *Project modifications and refinements include use of additional material from the Brookfield borrow site.*
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)	Analyzed moving the Vestal Drain 400 feet southward from its current alignment. *Project modifications and refinements would include moving the drain approximately 250 (rather than 400) feet southward from its current alignment, and use of box culverts for undercrossing of the Bennett Irrigation Canal and connection to the North Drain channel.* Analyzed material hauling on various project roadways. *Project modifications and refinements include hauling of additional material between the Brookfield borrow site and work areas.* Analyzed use of borrow material for improvements along the NCC south levee. *Project modifications and refinements include use of additional material from the Brookfield borrow site.* Analyzed use of material from the relocated Vestal Drain to backfill the existing Vestal Drain. *Project modifications and refinements include excavation and backfill of additional material from the relocated Vestal Drain.*

Table 1. Natomas Levee Improvement Program Environmental Documentation

Document Title	Related Project Refinements and Modifications
Addendum to the Environmental Impact Report on the Natomas Levee Improvement Program, Phase 4a Landside Improvements Project. SCH 2009032097 (February 2011)	Not related to project refinements and modifications analyzed in this Addendum.
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.

3. Summary of the Phase 4b Project

The Phase 4b Project addresses underseepage, stability, erosion, penetrations, and levee encroachments along approximately 3.4 miles of the Sacramento River east levee (Reach A:16–20), approximately 1.8 miles of the American River north levee (Reach I:1–4), approximately 6.8 miles of the Natomas East Main Drainage Canal (NEMDC) west levee (Reach F–G), approximately 3.3 miles of the Pleasant Grove Creek Canal (PGCC) west levee (Reach E), and the gaps left in the improvements of previous phases at levee penetrations and road crossings on the Natomas Cross Canal (NCC) south levee. Plate 1 (Attachment A) illustrates the reaches and phases of the NLIP project.

The Phase 4b project includes the following actions to address underseepage, stability, erosion, penetrations, and encroachments:

- Constructing an adjacent levee along the Sacramento River east levee Reach A:16–20; and installing cutoff walls, seepage berms, and relief wells where required for this levee.
- Installing a cutoff wall in the American River north levee east of Gateway Oaks Drive to Northgate Boulevard, and landside slope flattening.
- Raising the NEMDC west levee in place or widening the levee from just south of Elkhorn Boulevard to Sankey Road, as well as landside slope flattening and seepage remediation as necessary.
- Constructing waterside erosion protection in locations along the PGCC and NEMDC (south of Elkhorn Boulevard).

- Upgrading or removing culverts located beneath the PGCC, and providing replacement flood storage as needed.
- Installing seepage remediation at the State Route (SR) 99 crossing of the NCC and constructing a moveable barrier system to prevent overflow from reaching the landside of the NCC south levee.
- Realigning the western portion of the West Drainage Canal to the south, and improving the remaining portion of the existing canal to reduce bank erosion and sloughing, decrease aquatic weed infiltration, improve Reclamation District (RD) 1000 maintenance access, and enhance giant garter snake habitat connectivity.
- Relocating irrigation canals and ditches, either to make room for expanded levee sections or to reduce underseepage potential.
- Raising discharge pipes for RD 1000 pumping plants and City of Sacramento sump pumps to cross the levee above design flood water surface elevation.
- Excavating and reclaiming parcels in the South Fisherman's Lake and Triangle Properties Borrow Areas and at the West Lakeside School Site as agricultural land.
- Establishing woodland groves to compensate for impacts along the Sacramento River east levee Reach A:16–20, American River north levee Reach I:1-4, and NEMDC.
- Acquiring right-of-way to construct, operate, and maintain the improvements

4. Modifications and Refinements to the Phase 4b Project

4.1 Construction Details

Construction details are based on information provided by USACE in the *Draft Supplemental Environmental Assessment, American River Watershed Common Features Natomas Basin Project Reach D, Sutter County, California* (USACE 2017a), summarized from the plans and specifications (100 percent submittal) for the *American River Common Features Natomas Basin Reach D Windows, Sutter County, California, Design File No. 1-04-0637, Spec No. 2067* (USACE 2017b).

4.1.1 Bennett and Northern Main Pumping Plants

Natomas Mutual Water Company's former Bennett and Northern Main Pumping Plants on the NCC south levee were abandoned following completion of the Sankey Diversion pumping plant on the Sacramento River, after SAFCA completed installing a cutoff wall in most of the NCC south levee in 2010. USACE has since determined that the gaps in the cutoff wall in these areas are small enough that they do not have significant seepage issues; however, the structures associated with the former pump plants must be removed in these levee sections, and the Vestal Drain needs to be relocated away from

the toe of the levee (see discussion below). Structures to be removed include pipes through the levee, concrete sump and valve box structures, and three power poles formerly associated with the pumping plants. Two additional power poles would be relocated by Pacific Gas and Electric Company (PG&E) to facilitate construction. These poles would be removed and relocated prior to project construction at the former Bennett Pumping Plant. *The Final Environmental Impact Report on the Natomas Levee Improvement Program Phase 4a Landside Improvements Project* (Phase 4a EIS/EIR) (SAFCA 2009f) analyzed the removal of the structures within the levee section, installation of a cutoff wall, and levee raising at the former Northern Main and Bennett Pumping Plants. However, additional detail on these project components are now available and the cutoff wall installation is no longer included in the project.

Abandoned pipes associated with the former Northern Main and Bennett Pumping Plants would be removed by temporarily degrading (excavating) the levee, removing the pipes, and reconstructing the levee with appropriate compacted fill. To reduce the amount of in-channel work, the valve box structures at the waterside toe of the levee would be left in place due to their function as retaining walls, but they would be cut shorter (i.e. reduced in height) so that they do not project above the ground surface. These valve box structures would be filled with a rock rip-rap material and the concrete sidewalls adjusted to grade. Additional rock would be placed in the NCC channel at the waterside toe to prevent further erosion on the steep banks. Waterside ramps would be removed and the waterside levee slope would be regraded to match the new waterside slope after the removal of the intake structures. The demolition and removal of remaining plant pipes and facilities at both Bennett and Northern Main Windows would be followed by the re-grading and raising of the levee crown alignment to match the adjacent levee sections, as described in the Phase 4a EIS/EIR.

This addendum evaluates filling the valve box structures with rip-rap and grade adjustments, removal of waterside ramps to match slope, and rock placed at the waterside toe. Other improvements would be as analyzed in previous environmental documents, including the Phase 4a EIS/EIR.

4.1.2 Pumping Plant Number 4

Outlet pipes at Pumping Plant No. 4 need to be raised to meet current USACE and State standards. To raise the outlet pipes to the appropriate elevation, the levee would be partially degraded to expose and remove the three existing 48-inch diameter pipes. Once the existing pipes have been removed, the levee would be partially rebuilt, new pipes installed on the partially rebuilt levee, and approximately three feet of material would be placed on top of the new pipes to complete the levee construction. In addition to the new pipes, a new outfall structure would be constructed on the waterside of the levee. The outfall structure would be constructed out of concrete and riprap to withstand water velocities exiting the pumping plant discharge pipes.

In addition to the raised pipes and outfall structure, the building that houses the pumps would be removed and replaced. The existing Pumping Plant No. 4 building is currently located in a low area that floods during heavy rain, and the new pump platform would be raised approximately 3 feet. Additional modifications to the existing Pumping Plant No. 4 include new trash rakes, a two-way trash rake access ramp, a storm drainage system, a new electrical building and transformer, and an enclosed yard to protect the pumps and the electrical building from vandalism.

The *Final Environmental Impact Report on Local Funding Mechanisms for Comprehensive Flood Control Improvements for the Sacramento Area* (2007 Landside EIR) (SAFCA 2007a) addressed raising of the outlet pipes at Pumping Plant No. 4, and Addendum Number 2 to the 2007 Landside EIR

addressed the replacement of the outfall structure at Pumping Plant No. 4. Other modifications and refinements proposed (construction of a new elevated pump platform, trash rake, access ramp, storm drainage, electrical building and transformer, and enclosed yard) were not previously analyzed for Pumping Plant No. 4, but are similar to landside improvements to Pumping Plant No. 2 that were addressed in the *Final Environmental Impact Report on the Natomas Levee Improvement Program Phase 3 Landside Improvements Project* [Phase 3 EIR] [SAFCA 2009b].

This addendum addresses the impacts of constructing a new elevated pump platform, trash rake, access ramp, storm drainage, electrical building and transformer, and enclosed yard; other improvements have been analyzed in prior CEQA documents, including the 2007 Landside EIR and Addendum No. 2 to the Phase 2 EIR.

4.1.3 Vestal Drain

The Vestal Drain is designed to take storm water runoff and irrigation tailwater drainage from the surrounding agricultural fields and transport this water to Pumping Plant No. 4, which then pumps the water into the NCC. The existing Vestal Drain is located adjacent the landside toe of the levee along the NCC, from approximately 1,500 feet east of Garden Highway to its connection with Pumping Plant No. 4, a length of approximately 1.5 miles. To reduce seepage along Reach D, the existing Vestal Drain would be relocated from its current position adjacent to the landside toe of the levee to a new alignment south of the Sankey Canal, approximately 250 feet southward from its current alignment. The new Vestal Drain would be between 8- to 20-feet-wide at the bottom and have 3H:1V side slopes. After construction of the new Vestal Drain, the existing Vestal Drain would be filled in using the material excavated from the new drain. This excavated material would be stockpiled temporarily near the existing drain until the new drain is completed. The new Vestal Drain would cross under the existing Bennett Irrigation Canal and connect into the existing North Drain channel using box culverts. The Phase 4b EIS/EIR analyzed moving the Vestal Drain 400 feet southward from its current alignment; the project modification identified in this addendum (moving the drain approximately 250 feet southward) would have reduced effects compared to the project analyzed in the Phase 4b EIS/EIR. This addendum considers the use of box culverts for undercrossing of the Bennett Irrigation Canal and the connection to the North Drain channel.

4.1.4 Access and Staging

A combination of existing ramps and temporary ramps would be used during the construction of the project. The two existing landside ramps from the levee crown to the landside levee toe patrol road would be lengthened at the Bennett site to maintain maximum slopes of 10 percent due to the increased elevation of the levee. The remaining waterside ramps at the Bennett and Northern Main sites would be regraded to match the new waterside slope after removal of the intake structures. The existing maintenance road on the landside levee toe would be widened to a minimum width of 12 feet, and would be raised approximately 2 feet above the adjacent grade to comply with USACE criteria.

There are several proposed staging areas for the construction of the project. These staging areas are described below.

- The main project staging area would be located on the landside of the levee near where Garden Highway crosses Sankey Road. This staging area is approximately 4 acres in area, and would likely contain construction trailers and equipment (Plate 10). This area was included in the project footprint

for the *Final Environmental Impact Report on the Natomas Levee Improvement Program Landside Improvements Project* (Phase 2 EIR) (SAFCA 2007b).

- The area between the existing Vestal Drain and the levee is proposed as a stockpile area for the material excavated from the new Vestal Drain alignment. This staging area is approximately 3.5 acres in area. This area was included in the project footprint for the Phase 2 EIR, as a staging area.

- The areas immediately adjacent to the Northern Main Pumping Plant, Bennett Pumping Plant, and Pumping Plant No. 4 sites would be used as staging areas for material and construction vehicles and equipment. These three staging areas would encompass approximately 9 acres in total. These areas were included in the project footprint of the Phase 2 EIR.

During construction, haul trucks would be limited to the maintenance roads located on the landside toe of the levee and to the project right-of-way along the new Vestal Drain. The haul routes used to transport soil and materials to and from the project site would be consistent with those described in the previous environmental documents, including the 2007 Landside EIR, the Phase 2 EIR, Phase 3 EIR, Phase 4a EIS/EIR, and Phase 4b EIS/EIR. The volume of materials to be moved would be slightly greater (approximately 22,000 additional cubic yards (cy) above the 2.4 million cy previously analyzed) than the volumes analyzed in the prior documents. Haul routes between the Brookfield borrow site, disposal sites, and the modified project would include Howsley Road, SR 99, Sankey Road, and potentially Interstate 5 (I-5) and Interstate 80 (I-80).

This addendum considers the use of areas within the previously analyzed project footprints as staging areas, and slightly increased hauling due to higher material quantity demand.

4.1.5 Borrow and Disposal Sites

The Brookfield site, analyzed in the Phase 2 EIR and Phase 3 EIR, would be used as a source for borrow material. The Brookfield site is located in the northeast corner of the Natomas Basin and the area to be used for the Reach D Project has an area of approximately 5 acres. Existing soil stockpiles on the site, as well as field excavation of depths between 5 and 6 feet, would yield approximately 50,000 cy of material. This material would be transported from the Brookfield site to construction areas along Reach D, requiring a haul route of no more than 6 miles to get to the southwestern portion of Reach D. Aggregate material would come from commercial sources up to 30 miles away. The Phase 4a EIS/EIR analyzed use of 33,000 cy of material from the Brookfield site for the levee raising at Bennett and Northern Main Pump Stations; the project modifications and refinements represent an increase of 17,000 cy of material over what was analyzed in the Phase 4a EIS/EIR. The Phase 3 EIS/EIR analyzed excavation to an estimated depth of 6 feet at the Brookfield site, including removal of approximately 1.7 million cy from the site.

Excavation of the new Vestal Drain would generate approximately 130,000 cy of material, which is the estimated quantity required for the filling of the existing Vestal Drain, including channel backfill, overbank grading, and material shrinkage. The excavated material would be temporarily stockpiled on-site until the new Vestal Drain is sufficiently complete to divert flows into the new channel. The Phase 4b EIS/EIR analyzed approximately 125,000 cy of material as the volume excavated from the replacement Vestal Drain, and used as backfill in the existing Vestal Drain; the refined project design would result in an increase of 5,000 cy over what was analyzed in the Phase 4b EIS/EIR.

The contractor is responsible for determining the location of a commercial disposal site outside the construction limits. The selected site must be permitted and meet environmental standards as specified in the contract, as well as approved by USACE. There are three landfills within 15 to 30 miles from the project area, including the North Area Recovery Station in Sacramento County, the Western Regional Sanitary Landfill in Sutter County, and the Yolo County Central Woodland. All of these listed disposal sites accept commercial and hazardous wastes.

This addendum evaluates the use and transportation of approximately 22,000 cy of material in excess of what was analyzed in prior project documents, including the Phase 3 EIR, Phase 4a EIS/EIR and Phase 4b EIS/EIR.

4.1.6 Site Preparation and Restoration

Site preparation and restoration would be generally as described in previous documents, including the Phase 4b EIS/EIR, which included removal and reuse of approximately 12 inches of surface soil, rather than the 3 to 6 inches identified for the modified project. The site preparation and restoration components of the modified project would have reduced effects, compared to those analyzed in the Phase 4b EIS/EIR and prior documents.

Before the start of construction, construction areas would be fenced off to limit access, as appropriate. Construction fencing would be installed on the landside of the project site and along the boundary of the access/haul road at the waterside toe for site safety and security.

Prior to general site grading, approximately 3 to 6 inches of surface soil would be stripped over the length of the new Vestal Drain alignment to remove existing vegetation, organic topsoil, and any debris. The vegetation and debris material would be disposed of in an approved commercial disposal site outside the construction limits. The organic soil would be stockpiled on-site for use in finish grading of the project site. Deeper stripping or grubbing may be required where concentrations of organic soils or tree roots are encountered during site grading. Where appropriate, trees would be protected in place. Pipe removal at Bennett, Northern Main, and Pumping Plant No. 4 sites would require the removal of a total of approximately 40,000 cy of material, including approximately 5,700 cy of surface soil. Material that is determined to be unsuitable for reuse on-site would be disposed of by the contractor at a State-approved, licensed, and permitted facility.

Once the work is completed, all equipment and excess materials would be transported off-site via local roads and regional highways. The staging areas and barren earthen and levee slopes would be reseeded with native grasses to promote re-vegetation and minimize soil erosion. The Brookfield borrow site would be finish graded to allow rice cultivation, similar to the process followed at the site during implementation of previous components of the NLIP. The levee crown, access ramps, and maintenance roads would be topped with aggregate base rock. Any damage to roads or other access routes from construction activities would be repaired. Finally, the work sites and staging areas would be cleaned of all rubbish, and all parts of the work area would be left in a safe and neat condition.

5. CEQA Standard for Preparation of an Addendum

Under State CEQA Guidelines[2] Section 15164, an Addendum to a previously certified EIR may be prepared when some changes or additions to the proposed project are necessary but are only minor technical changes or additions and none of the conditions described in the CEQA Guidelines that require either a Subsequent EIR (Section 15162) or a Supplemental EIR (Section 15163) have occurred.

Under CEQA Guidelines 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 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 as complete shows any of the following:

    - 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.

Under CEQA Guidelines Section 15163, the lead agency may prepare a supplement to a previously certified EIR (a "Supplemental EIR"), rather than a Subsequent EIR, if any of the conditions described in CEQA Guidelines Section 15162 would require the preparation of a Subsequent EIR, and only minor

[2] The State CEQA Guidelines are found at California Code of Regulations, Title 14, Section 15000 et seq. (CEQA Guidelines).

additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.

6. Environmental Analysis

This section of the Addendum analyzes the potential effects on the physical environment from implementation of the proposed modifications and refinements to the approved Phase 4b project. This analysis has been prepared to determine whether any of the conditions in CEQA Guidelines Sections 15162 or 15163, described above, that would require preparation of a Subsequent or Supplemental EIR, would occur as a result of the proposed modifications and refinements.

6.1 Issues Not Analyzed Further in this Addendum

The proposed activities associated with the improvements that are described in this Addendum constitute minor changes in the approved Phase 4b project, as analyzed in the previous documents. Implementing these proposed modifications and refinements would not cause any new significant impacts or a substantial increase in the severity or intensity of the impacts analyzed and disclosed in the 2007 Landside EIR, Phase 2 EIR, Phase 4a EIS/EIR, or Phase 4b EIS/EIR, and their supplements and addenda (SAFCA 2009a, SAFCA 2009c, SAFCA 2009d, SAFCA 2009e) in the following issue areas:

- agricultural resources;
- land use, socioeconomics, and population and housing;
- geology, soils, and mineral resources;
- hydrology and hydraulics;
- water quality;
- cultural resources;
- paleontological resources;
- recreation;
- utilities and service systems;
- hazards and hazardous materials;
- visual resources; and
- environmental justice.

That is because these issue areas were fully analyzed in the previously certified EIRs, addenda, and supplements, and the area of disturbance associated with the proposed changes to the Phase 4b project described in this Addendum would fall entirely within the previously analyzed project footprint. Furthermore, for each significant impact related to construction in these project areas, mitigation measures adopted by SAFCA and incorporated into the Phase 4b EIS/EIR project would apply.

6.2 Issues Carried Forward for Further Analysis in this Addendum

6.2.1 Biological Resources

The project modifications and refinements include grading on the waterside, and placement of riprap at the waterside toe of the NCC south levee at the Bennett and Northern Main Pumping Plants. The Phase 2 EIR considered impacts on sensitive habitats and special status species associated with waterside disturbance, excavation, and fill, including below the ordinary high-water mark (OHWM) on the NCC south levee. The modified project impacts would be similar to those evaluated in the Phase 2 EIR.

The modified project also includes improvements at Pumping Plant No. 4 and additional staging and access areas. These modifications and refinements all fall within the previously analyzed project footprint, and, as described in Section 4.1.6, "Site Preparation and Restoration," would be restored to pre-project conditions. The modified Vestal Drain relocation would have similar or lesser biological resources impacts to those previously analyzed, because the relocated drain would be closer to the levee toe (250 feet compared to 400 feet as previously analyzed), and less area would be disturbed. The project modifications and refinements would not result in new or substantially more severe biological resources impacts.

6.2.2 Transportation and Circulation

The project modifications and refinements include use of borrow material from the Brookfield borrow site, and an increase of 22,000 cy of material over what was previously evaluated for improvements at the Bennett and Northern Main pumping plant sites and the relocation of the Vestal Drain. The increase in borrow material would lead to an increase in haul trips; up to an additional 1,500 truck trips (up to 50 trips per day) beyond those previously considered, primarily traveling along Howsley Road. Previous documents, including the Phase 2 EIR, Phase 4a EIS/EIR, and Phase 4b EIS/EIR, identified significant and unavoidable transportation impacts related to haul traffic on this roadway, and the impact of the additional trips is not substantially more severe than the original impact, because most of the hauling would occur on levee roads, and up to 50 truck trips per day on Howsley Road (fewer than the 500 haul trips per day to the NCC south levee analyzed in the Phase 2 EIR) would not substantially increase congestion on this local, rural roadway, which typically generates low traffic volumes. The mitigation measure identified in the 4b EIS/EIR (Mitigation Measure 4.10-a, "Prepare an Implement a Traffic Safety and Control Plan for Construction-Related Truck Trips"), which was previously adopted and incorporated into the project, would reduce these impacts for the modified project by requiring coordination and phasing of activities to minimize the amount of daily traffic on individual roadways. No further mitigation would be required.

6.2.3 Air Quality

As described in Section 6.2.2, "Transportation and Circulation," the project modifications and refinements would increase the number of haul trips and material handling over what was previously analyzed for improvements at the Bennett and Northern Main pumping plants, and the relocation of the Vestal Drain. Previous environmental review documents, including the Phase 2 EIR, Phase 4a EIS/EIR, and Phase 4b EIS/EIR, identified significant and unavoidable air quality impacts related to construction and material hauling, and the impact of the additional haul trips and material handling would not be substantially more severe than the original impact because of the small change in material volumes and trips (22,000 additional cy of material beyond the 1.7 million cy previously analyzed [a 1.2% increase],

with a correspondingly small increase in haul trips as discussed in Section 6.2.2, above). The mitigation measure identified in the Phase 4b EIS/EIR (Mitigation Measure 4.11-a, "Implement Applicable District-Recommended Control Measures to Minimize Temporary and Short-Term Emissions of ROG, NOx, and PM10 During Construction"), which was previously adopted and incorporated into the project, would reduce these impacts for the modified project by requiring dust control, construction exhaust restrictions, and payment of fees to offset emissions. No further mitigation would be required.

6.2.4 Noise

As described in Section 6.2.2, "Transportation and Circulation," the project modifications and refinements would increase the number of haul trips and material handling over what was previously analyzed for improvements at the Bennett and Northern Main pumping plants, and the relocation of the Vestal Drain. Previous environmental review documents, including the Phase 2 EIR, Phase 4a EIS/EIR, and Phase 4b EIS/EIR, identified significant and unavoidable noise and vibration impacts related to construction and haul truck traffic, and the impact of the additional haul trips and material handling would not be substantially more severe or intense than the original impact. The Phase 2 EIR analyzed up to 500 haul trips per day to the NCC south levee, more than the 50 trips per day described in the project modifications and refinements. The mitigation measures identified in the Phase 4b EIS/EIR (Mitigation Measure 4.12-a, "Implement Noise-Reducing Construction Practices, Prepare and Implement a Noise Control Plan, and Monitor and Record Construction Noise Near Sensitive Receptors;" Mitigation Measure 4.12-b, "Implement Vibration-Reducing Construction Practices, Prepare and Implement a Groundborne Vibration Control Plan, and Monitor and Record Construction Groundborne Vibration Near Sensitive Receptors;" and Mitigation Measure 4.12-c, "Implement Noise-Reduction Measures to Reduce the Impacts of Haul Truck Traffic Noise"), which were previously adopted and incorporated into the project, would reduce these impacts for the modified project by requiring use of appropriately equipped vehicles, avoiding sensitive receptors where possible, avoiding use of horns and alarms, reducing vehicle speeds, and providing notifications. No further mitigation would be required.

7. Conclusions

As described in the preceding sections, the proposed modifications and refinements to the NLIP project analyzed in the 2007 Landside EIR, the Phase 2 EIR, Phase 3 EIR, Phase 4a EIS/EIR, Phase 4b EIS/EIR, and supplements and addenda to these EIRs, would not require major revisions to the prior documents because no new or substantially more severe significant environmental impacts would result from the proposed modifications and refinements.

Based on the analysis above, implementing the proposed modifications and refinements to the NLIP as described in this Addendum would not result in any of the conditions described in Sections 15162 and 15163 of the State CEQA Guidelines calling for preparation of a Subsequent or Supplemental EIR. In summary, there are no substantial changes in the NLIP or substantial changes in the circumstances under which the project modifications and refinements would be undertaken that would require major revisions to the prior EIRs, and no new information of substantial importance showing any of the following:

- one or more new significant environmental effects,
- previously examined significant impacts that would be substantially more severe than previously shown,
- mitigation measures or alternatives previously found to be infeasible would be feasible and would reduce a significant impact but would not be implemented, and
- availability/implementation of mitigation measures or alternatives that are considerably different from those analyzed in the previous documents that would substantially reduce one or more significant effects on the physical environment but would not be implemented.

Therefore, no Subsequent or Supplemental EIR is required, and preparation of an Addendum to the 2010 Phase 4b EIR pursuant to State CEQA Guidelines Section 15164 is appropriate for the proposed modifications and refinements to the NLIP Phase 4b Project.

8. References Cited

Sacramento Area Flood Control Agency. 2007a (February). *Final Environmental Impact Report on Local Funding Mechanisms for Comprehensive Flood Control Improvements for the Sacramento Area*. State Clearinghouse No. 2006072098. Sacramento, CA. Prepared by EDAW, Sacramento, CA.

———. 2007b (November). *Final Environmental Impact Report on the Natomas Levee Improvement Program Landside Improvements Project*. State Clearinghouse No. 2007062016. Sacramento, CA. Prepared by EDAW, Sacramento, CA.

———. 2009a (January). *Final Supplement to the Environmental Impact Report on the Natomas Levee Improvement Program Landside Improvements Project—Phase 2 Project*. State Clearinghouse No. 2007062016. Sacramento, CA. Prepared by EDAW, Sacramento, CA.

———. 2009b (May). *Final Environmental Impact Report on the Natomas Levee Improvement Program Phase 3 Landside Improvements Project*. State Clearinghouse No. 2007062016. Sacramento, CA. Prepared by EDAW, Sacramento, CA.

———. 2009c (June). *Addendum to the Environmental Impact Report on the Natomas Levee Improvement Program, Landside Improvements Project – Phase 2 Project*. State Clearinghouse No. 2007062016. Prepared by EDAW, Sacramento, CA.

———. 2009d (August). *2nd Addendum to the Environmental Impact Report on the Natomas Levee Improvement Program, Landside Improvements Project – Phase 2 Project*. State Clearinghouse No. 2007062016. Prepared by EDAW, Sacramento, CA.

———. 2009e (September). *Addendum to the Environmental Impact Report on the Natomas Levee Improvement Program, Landside Improvements Program Phase 3 Landside Improvements Project*. State Clearinghouse No. 2008072060. Prepared by EDAW, Sacramento, CA.

———. 2009f (November). *Final Environmental Impact Report on the Natomas Levee Improvement Program Phase 4a Landside Improvements Project*. State Clearinghouse No. 2009032097. Prepared by AECOM, Sacramento, CA.

———. 2010 (October). *Final 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*. State Clearinghouse No. 2009112025. Prepared by AECOM, Sacramento, CA.

9. Report Preparers and Reviewers

This Addendum was prepared by GEI Consultants, Inc., at the direction of SAFCA. The following is a list of the individuals who prepared the Addendum, provided important background materials, provided project description engineering clarifications, or participated in preparing the Addendum.

Sacramento Area Flood Control Agency

John Bassett, P.E. .....Director of Engineering, Project Manager

GEI Consultants, Inc.

Francine Dunn.....Principal-in-Charge, CEQA Reviewer, QA/QC

Drew Sutton .....Addendum Project Manager, Impact Assessment

Charisse Case .....Document Specialist

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Attachment A. Plates from the American River Common Features Natomas Basin Project Reach D Final Supplemental Environmental Assessment

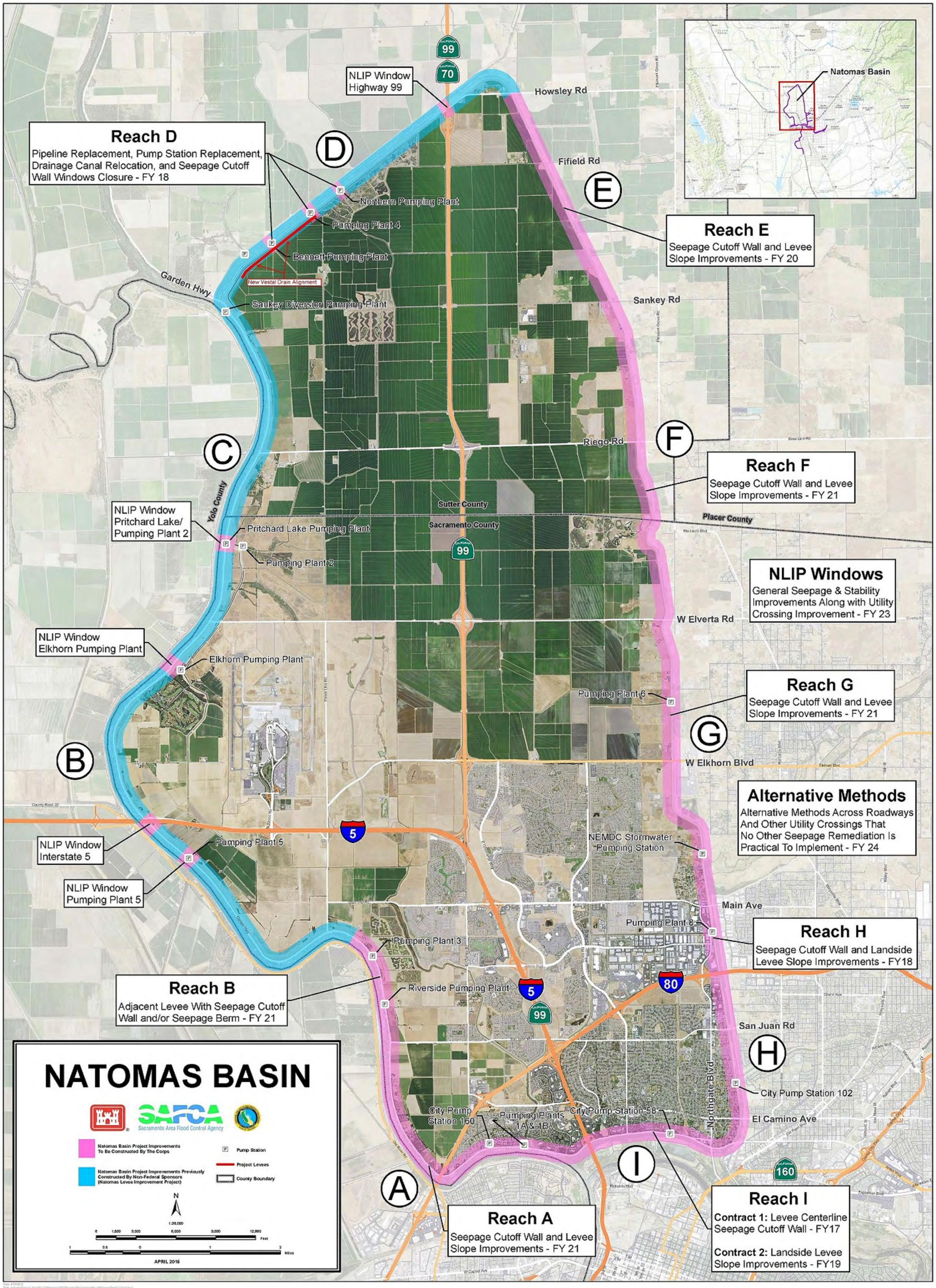

Natomas Basin
NLIP Window
Highway 99
Howsley Rd
Fifield Rd
Sankey Rd
Riego Rd
W Elverta Rd
W Elkhorn Blvd
Main Ave
San Juan Rd
El Camino Ave
Garden Hwy
Yolo County
Sutter County
Sacramento County
Placer County
Northgate Blvd
Reach D
Pipeline Replacement, Pump Station Replacement, Drainage Canal Relocation, and Seepage Cutoff Wall Windows Closure - FY 18
Northern Pumping Plant
Pumping Plant 4
Bennett Pumping Plant
New Vestal Drain Alignment
Sankey Diverston Pumping Plant
Reach E
Seepage Cutoff Wall and Levee Slope Improvements - FY 20
Reach F
Seepage Cutoff Wall and Levee Slope Improvements - FY 21
NLIP Windows
General Seepage & Stability Improvements Along with Utility Crossing Improvement - FY 23
NLIP Window Pritchard Lake/ Pumping Plant 2
Pritchard Lake Pumping Plant
Pumping Plant 2
NLIP Window Elkhorn Pumping Plant
Elkhorn Pumping Plant
Pumping Plant 6
Reach G
Seepage Cutoff Wall and Levee Slope Improvements - FY 21
Alternative Methods
Alternative Methods Across Roadways And Other Utility Crossings That No Other Seepage Remediation Is Practical To Implement - FY 24
NLIP Window Interstate 5
NLIP Window Pumping Plant 5
Pumping Plant 5
NEMDC Stormwater Pumping Station
Pumping Plant 8
Pumping Plant 3
Reach H
Seepage Cutoff Wall and Landside Levee Slope Improvements - FY18
Riverside Pumping Plant
City Pump Station 102
City Pump Station 160
Pumping Plants 1A & 1B
City Pump Station 58
Reach B
Adjacent Levee With Seepage Cutoff Wall and/or Seepage Berm - FY 21
Reach A
Seepage Cutoff Wall and Levee Slope Improvements - FY 21
Reach I
Contract 1: Levee Centerline Seepage Cutoff Wall - FY17
Contract 2: Landside Levee Slope Improvements - FY19
NATOMAS BASIN
SAFCA
Sacramento Area Flood Control Agency
Natomas Basin Project Improvements To Be Constructed By The Corps
Natomas Basin Project Improvements Previously Constructed By Non-Federal Sponsors (Natomas Levee Improvement Project)
Pump Station
Project Levees
County Boundary
1:120,000
Feet
Miles
APRIL 2016

Plate 1

NOTES

1. HAUL ROUTES SHALL BE LANDWARD OF THE LEVEE. THE LEVEE CROWN SHALL NOT BE USED AS A HAUL ROUTE.
2. CONSTRUCTION TRAFFIC SHALL NOT EXCEED LEGAL LOADS FOR ROADS AND BRIDGES TO BE USED.

LEGEND

- STAGING AREA
- BORROW SITE
- HAUL ROUTE

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE

DESIGNED BY: E. JULIAN
DRAWN BY: E. JULIAN
CHECKED BY: M. KOSTECKA
SUBMITTED BY: P. VALENTINE
SIZE: ANSI-D
ISSUE DATE: 04/21/2017
SOLICITATION NO.:
CONTRACT NO.:
DESIGN FILE NO.: 1-04-0637
FILE NAME:
SPEC NO.: 2057

U.S. ARMY CORPS OF ENGINEERS
SACRAMENTO DISTRICT

IN-HOUSE DESIGN
1325 J STREET
SACRAMENTO, CA 95814-2922

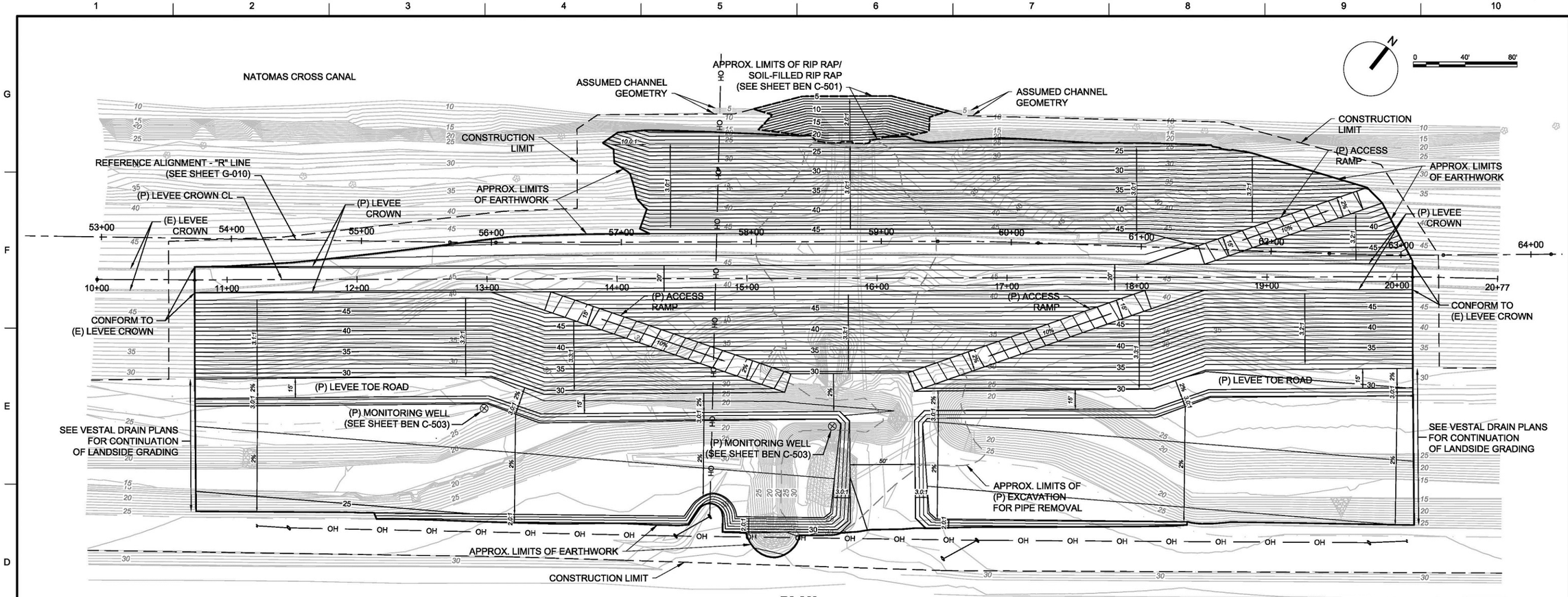
AMERICAN RIVER COMMON FEATURES
NATOMAS BASIN REACH D WINDOWS

HAUL ROUTE, BORROW SITE, & STAGING MAP

SHEET ID
G-006

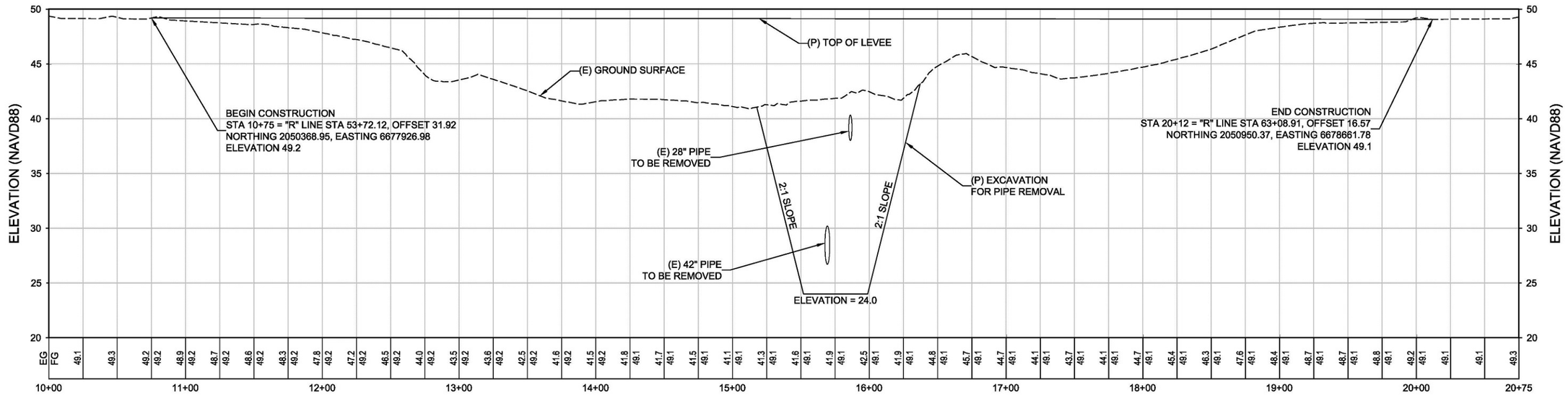
Drawing Name: X:\AmerRiv\CommonFeaturesGRR\Natomas-Design\Reach D\Civil\Civil 3D\1-04-0637G-006XXX.dwg
Last Opened: Apr 10, 2017 - 5:04pm by l2edoej9

90% SUBMITTAL
Plate 2



PLAN

SCALE 1"=40'



PROFILE

SCALE 1"=40' HORIZONTAL
1"=5' VERTICAL

NOTES: 1. (P) LEVEE CROWN CL ALIGNMENT IS A STRAIGHT LINE FROM STA 10+75 TO 20+12.
2. BOTTOM OF NATOMAS CROSS CANAL ESTIMATED TO BE AT ELEV 5' BASED ON AVAILABLE INFORMATION. CONTRACTOR TO FIELD VERIFY.
3. ELEVATIONS SHOWN FOR BELOW GRADE PIPES WERE ESTIMATED BASED ON AVAILABLE INFORMATION. CONTRACTOR TO FIELD VERIFY.
4. ALL SLOPES TO RECEIVE FILL SHALL BE BENCHED PER DETAIL ON SHEET BEN C-502.
5. LEVEE EMBANKMENT FILL SHALL CONSIST OF LEVEE FILL. RANDOM FILL MAY BE USED FOR THE LEVEE TOE ROAD AND LANDSIDE AREA.

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DRAWN BY: E. JULIAN	SOLICITATION NO.:
CHECKED BY: M. MOWERY	CONTRACT NO.:
SUBMITTED BY: P. VALENTINE	DESIGN FILE NO.: 1-04-0637
SIZE: ANSI-D	SPEC NO.: 2067
	FILE NAME:

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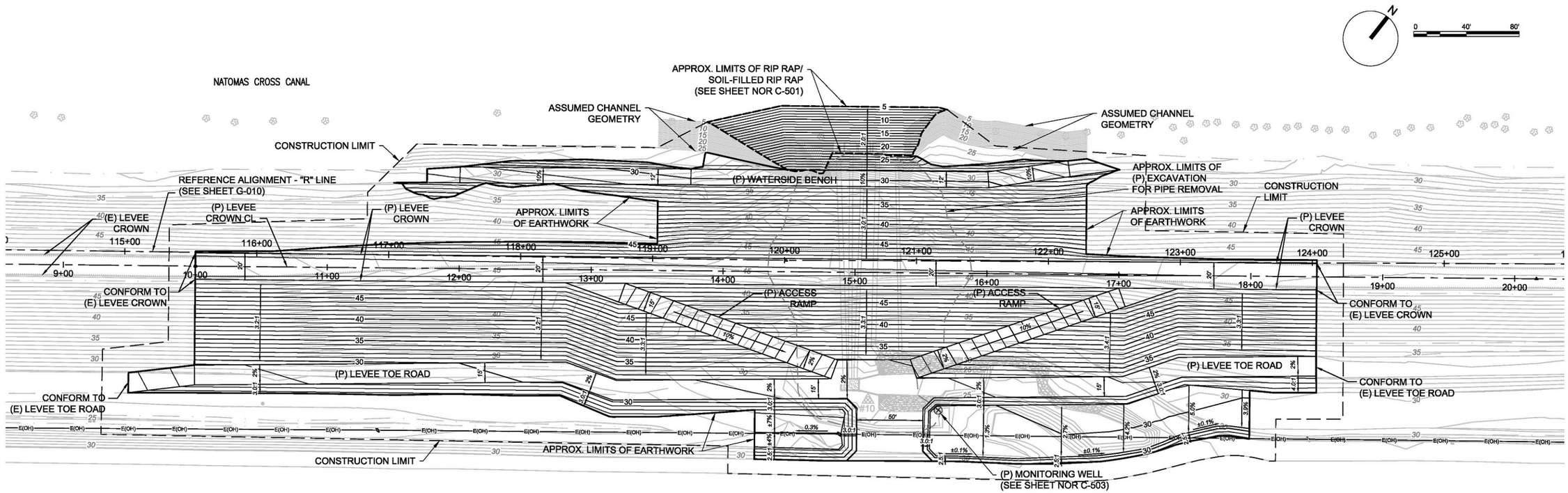
AMERICAN RIVER COMMON FEATURES
NATOMAS BASIN REACH D WINDOWS

BENNETT WINDOW (BEN)
GRADING PLAN & PROFILE
STATIONS 10+00 TO 20+75

SHEET ID
BEN
C-102

90% SUBMITTAL

Plate 3



PLAN
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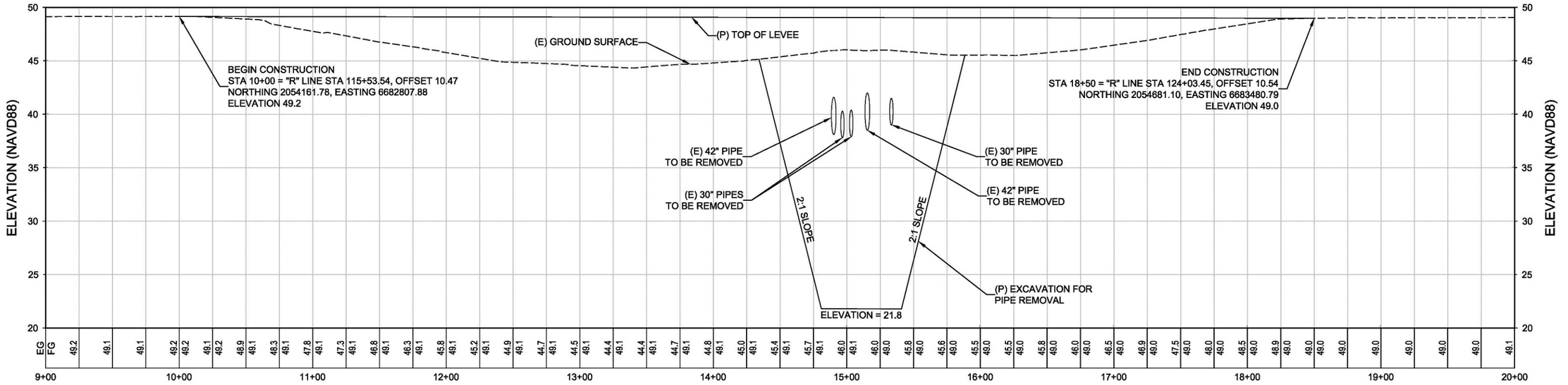

PROFILE
SCALE 1"=40' HORIZONTAL
1"=5' VERTICAL

NOTES: 1. (P) LEVEE CROWN CL ALIGNMENT IS A STRAIGHT LINE FROM STA 10+00 TO 18+50.
2. BOTTOM OF NATOMAS CROSS CANAL ESTIMATED TO BE AT ELEV 5' BASED ON AVAILABLE INFORMATION. CONTRACTOR TO FIELD VERIFY.
3. ELEVATIONS SHOWN FOR BELOW GRADE PIPES WERE ESTIMATED BASED ON AVAILABLE INFORMATION. CONTRACTOR TO FIELD VERIFY.
4. ALL SLOPES TO RECEIVE FILL SHALL BE BENCHED PER DETAIL ON SHEET BEN C-502.
5. LEVEE EMBANKMENT FILL SHALL CONSIST OF LEVEE FILL. RANDOM FILL MAY BE USED FOR THE LEVEE TOE ROAD AND LANDSIDE AREA.

Drawing Name: X:\AmerRiv\CommonFeaturesGRR\Natomas-Design\Reach D\Civil\Civil 3D\1-04-0637NORC-102XXX.dwg
Last Opened: Apr 19, 2017 - 5:25pm by lzedoej9

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DESIGNED BY: E. JULIAN
DRAWN BY: E. JULIAN
CHECKED BY: M. KEEFER
SUBMITTED BY: P. VALENTINE
SIZE: ANSI-D
ISSUE DATE: 04/21/2017
SOLICITATION NO.:
CONTRACT NO.:
DESIGN FILE NO.: 1-04-0637
SPEC NO.: 2067
FILE NAME:

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AMERICAN RIVER COMMON FEATURES
NATOMAS BASIN REACH D WINDOWS

NORTHERN WINDOW (NOR)
GRADING PLAN & PROFILE
STATIONS 9+00 TO 20+00

SHEET ID
NOR
C-102

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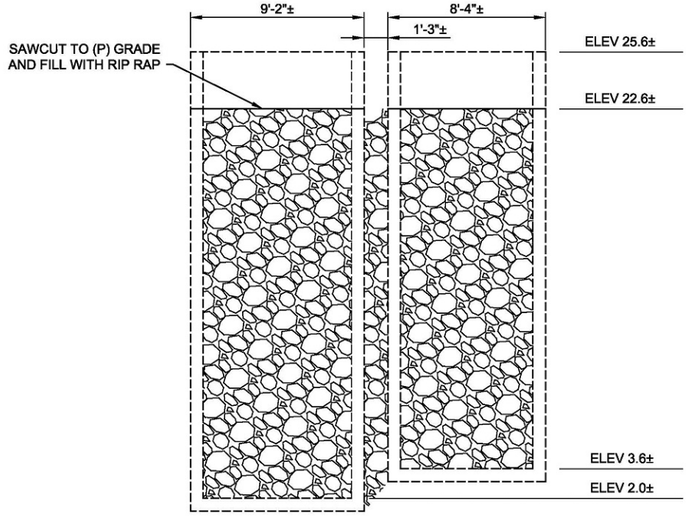
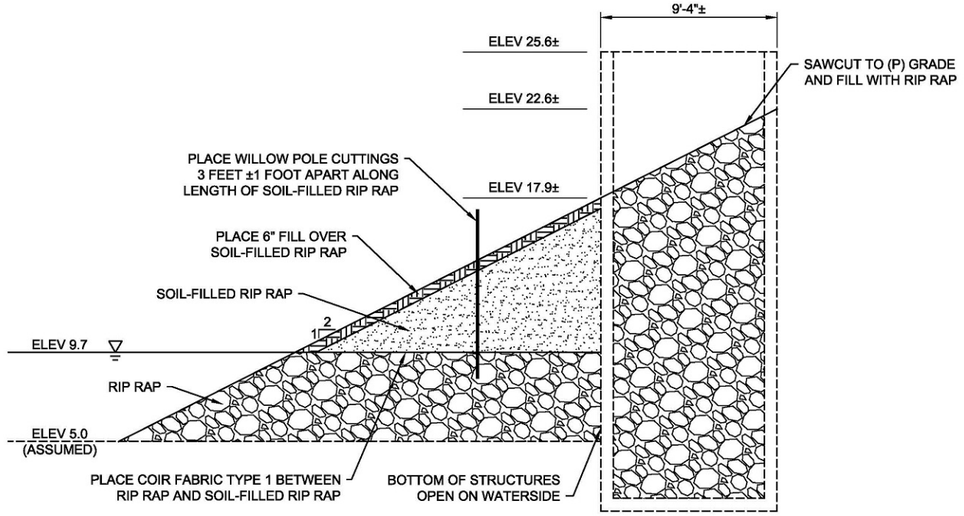
Plate 4


Poles to be Removed
Proposed New Power Pole
Pole to be Removed
LEVEE
Dirt Road
Proposed New Power Pole
ATTACHMENT 'F'

Plate 5



A SECTION
SCALE: 1/4" = 1'-0"



B SECTION
SCALE: 1/4" = 1'-0"

NOTES:

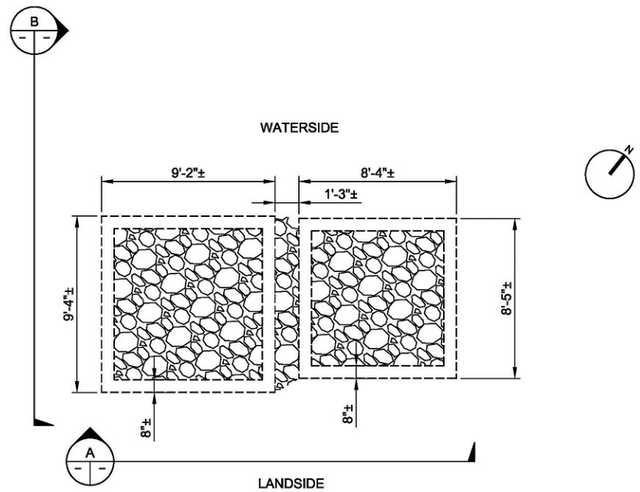
1. RIP RAP AND SOIL-FILLED RIP RAP SHALL MEET THE REQUIREMENTS OF SPECIFICATION 35 31 19.

2. WATER SURFACE ELEVATION SHOWN IS THE MEAN SUMMER ELEVATION.

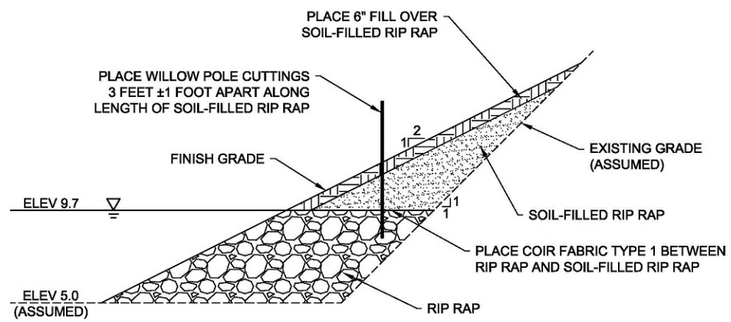
3. CONTRACTOR TO TRANSITION FROM RIP RAP TO SOIL-FILLED RIP RAP AT THE MEAN SUMMER WATER ELEVATION OR AS DIRECTED BY THE CONTRACTING OFFICER.

4. WILLOW POLE CUTTINGS ARE TO EXTEND BELOW THE MEAN SUMMER WATER ELEVATION.

5. CONTRACTOR TO WRAP TREES WITH COIR FABRIC TYPE 1 PER SPECS AND HAND PLACE RIP RAP AROUND TREES TO PREVENT TREE DAMAGE.



1 EXISTING CONCRETE STRUCTURE PLAN - BENNETT
SCALE: 1/4" = 1'-0"



2 TYPICAL RIP RAP/SOIL-FILLED RIP RAP DETAIL
NTS

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DESIGNED BY: E. JULIAN	ISSUE DATE: 04/21/2017
DRAWN BY: E. JULIAN	SOLICITATION NO.:
CHECKED BY: M. KOSTER	CONTRACT NO.:
SUBMITTED BY: P. VALENTINE	DESIGN FILE NO.: 1-04-0637
SIZE: ANSI-D	SPEC NO.: 2087
	FILE NAME:

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SACRAMENTO DISTRICT

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SACRAMENTO, CA 95814-2922

AMERICAN RIVER COMMON FEATURES
NATOMAS BASIN REACH D WINDOWS

BENNETT WINDOW (BEN)
DETAILS 1

SHEET ID
BEN
C-501

Drawing Name: X:\AmerRiv\CommonFeaturesGRR\Natomas-Design\Reach D\Civil\Civil 3D\1-04-0637BENC-501XXX.dwg
Last Opened: Apr 19, 2017 - 11:11am by i2edeej9

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Plate 6

GENERAL NOTES

1. UNLESS OTHERWISE NOTED, ALL SHEET REFERENCES ON THIS SHEET ARE PUMPING PLANT 4 PLANS (PP4 B-, PP4 V-, PP4 C-, PP4 S-, PP4 A-, ETC.).
2. REFER TO G- SHEETS FOR GENERAL NOTES AND INFORMATION APPLICABLE TO ALL WINDOWS OF REACH D PROJECT.
3. SEE SHEET G-010 FOR SURVEY CONTROL POINTS AND REFERENCE ALIGNMENT "R" LINE DATA.
4. SEE SHEET G-006 AND G-007 FOR HAUL ROUTES AND CONTRACTOR STAGING AREAS.
5. SEE SHEET CD111 FOR GENERAL SITE DEMOLITION FOR PUMP PLANT 4 CONSTRUCTION.
6. SEE ENLARGED SITE PLANS C-131 THRU C-132 FOR ADDITIONAL INFORMATION/REQUIREMENTS OF SITE FEATURES.

BORING LOCATIONS. SEE SHEET B-101 FOR STICK LOG PROFILES.

KEY NOTES (#)

1. RD1000 PUMPING PLANT #4 (PP4) MODIFICATION CONSTRUCTION LIMIT.
2. PIPE RAISE/MODIFICATION AREA. SEE SHEETS C-121 AND C-122 FOR PLANS AND PROFILES.
3. (E) PUMPING PLANT #4.
4. (N) ELECTRICAL BUILDING AND TANSFORMER PAD.
5. PP4 PERIMETER SECURITY FENCE.
6. (E) LEVEE ROAD ACCESS RAMP TO BE RELOCATED. GRADE TO MATCH ADJACENT LEVEE SLOPE.
7. (N) LEVEE ROAD ACCESS RAMP.
8. REALIGNED LEVEE TOE ROAD.
9. (N) ACCESS RAMP TO SANKEY CANAL ROAD.
10. (N) DRIVE-THRU ACCESS TO TRASH RAKE.
11. (E) VESTAL DRAIN TO BE RELOCATED TO SOUTH OF SANKEY CANAL. SEE VESTAL DRAIN RELOCATION PLANS.

N

60 0 60 120 240 (FEET)
(1 inch = 60 feet)

US Army Corps of Engineers®

NOT FOR CONSTRUCTION
FOR REVIEW ONLY

MARK	DESCRIPTION	DATE

ISSUE DATE: 21 APR 2017
SOLICITATION NO.:
CONTRACT NO.:
DESIGN FILE NO.: 1-04-0637
FILE NAME: I-04-0637PAC-101.DWG

DESIGNED BY: D. SHIN
DRAWN BY: DS
CHECKED BY: M. BOEDTKER
SUBMITTED BY: A. ALBERTINE
SIZE: ANSI D
SPEC NO.: 2067

U.S. ARMY CORPS OF ENGINEERS
SACRAMENTO DISTRICT

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SACRAMENTO, CA 95814-2922

AMERICAN RIVER COMMON FEATURES
NATOMAS BASIN REACH D WINDOWS

PUMPING PLANT 4 (PP4)
OVERALL SITE PLAN AND SHEET INDEX

SHEET ID
PP4
C-101

Drawing Name: D:\Projects\Natomas\Reach D\Civil\Civil 3D\1-04-0637PP4C-101.dwg
Last Opened: Apr 24, 2017 - 1:30am by L2EDDDFS

90% DESIGN
Plate 7


9/15/2016 12:33:10 pm
12 pm
3 pm
Pump Plant 4
Bennett Pumping Plant
VESTAL DRAIN
EXISTING ALIGNMENT
FUTURE ALIGNMENT
Howsley Rd
Power Line Rd
© 2016 Google
Google earth
1993
Imagery Date: 7/11/2016 lat 38.792345° lon -121.590095° elev 0 ft eye alt 8629 ft

Plate 8

ADDITIONAL STOCKPILING AREA BETWEEN LEVEE TOE ROAD AND SANKEY CANAL EMBANKMENT, EXTENDS NORTHEAST TO BENNETT WINDOW.

EXISTING POWER POLE PROTECT IN PLACE (TYP)

MAIN STAGING AREA EAST: APPROX. 3.2 ACRES IN THE AREA BETWEEN SANKEY CANAL EMBANKMENT TOE ROAD AND FARM ROAD; APPROX. 125' WIDE x 1100' LONG.

MAIN STAGING AREA WEST: APPROX. 6.0 ACRES IN THE AREA BETWEEN LEVEE TOE ROAD AND SANKEY CANAL EMBANKMENT; APPROX. 85' TO 260' WIDE x 1900' LONG STARTING APPROX. 1025' NORTHWEST OF THE INTERSECTION OF GARDEN HWY AND SANKEY ROAD.

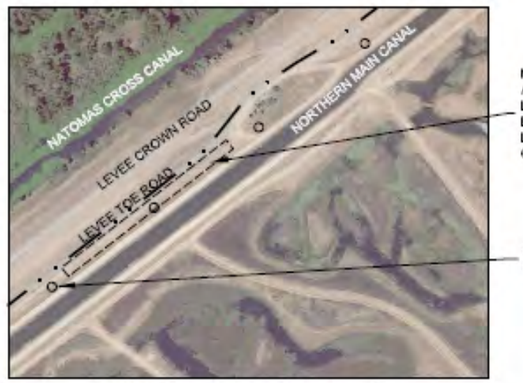
MAIN STAGING AREAS
SCALE: 1" = 200'

LEGEND

STAGING AREA

HAUL ROUTE

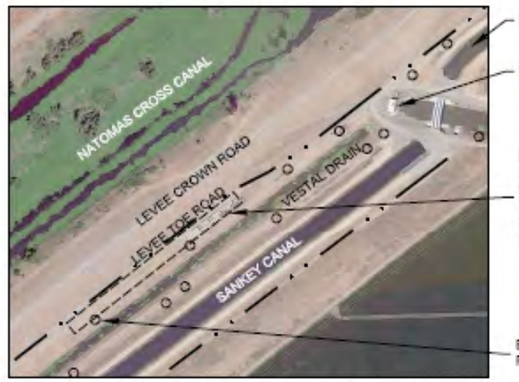
POWER POLE



NORTHERN STAGING AREA: APPROX. 0.38 ACRES IN THE AREA BETWEEN LEVEE TOE ROAD AND SANKEY CANAL EMBANKMENT; APPROX. 30' WIDE x 550' LONG STARTING APPROX. 50' NORTHEAST OF THE SOUTHWESTERN POWER POLE.

EXISTING POWER POLE PROTECT IN PLACE (TYP)

NORTHERN STAGING AREA
SCALE: 1" = 200'



NORTHERN MAIN CANAL

PUMPING PLANT 4

PUMPING PLANT 4 STAGING AREA: APPROX. 0.45 ACRES IN THE AREA BETWEEN EXISTING POWER POLES/OHE AND LEVEE TOE ROAD; APPROX. 35' WIDE x 560' LONG STARTING APPROX. 450 FEET SOUTHWEST OF PUMPING PLANT 4.

EXISTING POWER POLE PROTECT IN PLACE (TYP)

PUMPING PLANT 4 STAGING AREA
SCALE: 1" = 200'

EXISTING POWER POLE PROTECT IN PLACE (TYP)

BENNETT STAGING AREA: APPROX. 0.35 ACRES IN THE AREA BETWEEN EXISTING VESTAL DRAIN AND LEVEE TOE ROAD; APPROX. 40' TO 75' WIDE x 285' LONG STARTING APPROX. 235' NORTH OF SANKEY CANAL CROSSING.

SANKEY CANAL CROSSING SHALL NOT BE USED FOR HAULING. PROTECT IN PLACE.

N

0 200' 400'

BENNETT STAGING AREA
SCALE: 1" = 200'

US Army Corps of Engineers

MARK	DESCRIPTION	DATE

DESIGNED BY: E. KALMAN
DRAWN BY: E. KALMAN
QUALITY CONTROL BY: M. BROTHERS
SUBMITTED BY: A. VALENTINE
SIZE: ANSI D
ISSUE DATE: 04/21/2017
SOLICITATION NO.:
CONTRACT NO.:
DESIGN FILE NO.: 143-4837
SPEC NO.: 2087
FILE NAMES:

US ARMY CORPS OF ENGINEERS
SACRAMENTO DISTRICT

PARSONS DESIGN
1835 J STREET
SACRAMENTO, CA 916-340-6022

AMERICAN RIVER COMMON FEATURES
NATOMAS BASIN REACH D WINDOWS

STAGING MAP ENLARGED

SHEET ID
G-007

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BORROW EXCAVATION SUMMARY:
SURFACE LAYER REMOVAL = 5,000 CY
SOIL PILES = 9,600 CY
FIELD EXCAVATION = 41,300 CY

NOTES:

1. CONTOURS SHOWN ARE EXISTING GRADE, SURVEYED BY PSOMAS ON AUGUST 10, 2016.
   VERTICAL DATUM: NAVD88
2. YIELD QUANTITY ASSUMES 6" SURFACE LAYER REMOVAL AND NO SURFACE LAYER REPLACEMENT FOLLOWING BORROW MATERIAL EXCAVATION.

SAFCA Sacramento Area Flood Control Agency

19415-00/08001
09/13/2016

BROOKFIELD BORROW SITE FIELD 2B

Mead & Hunt

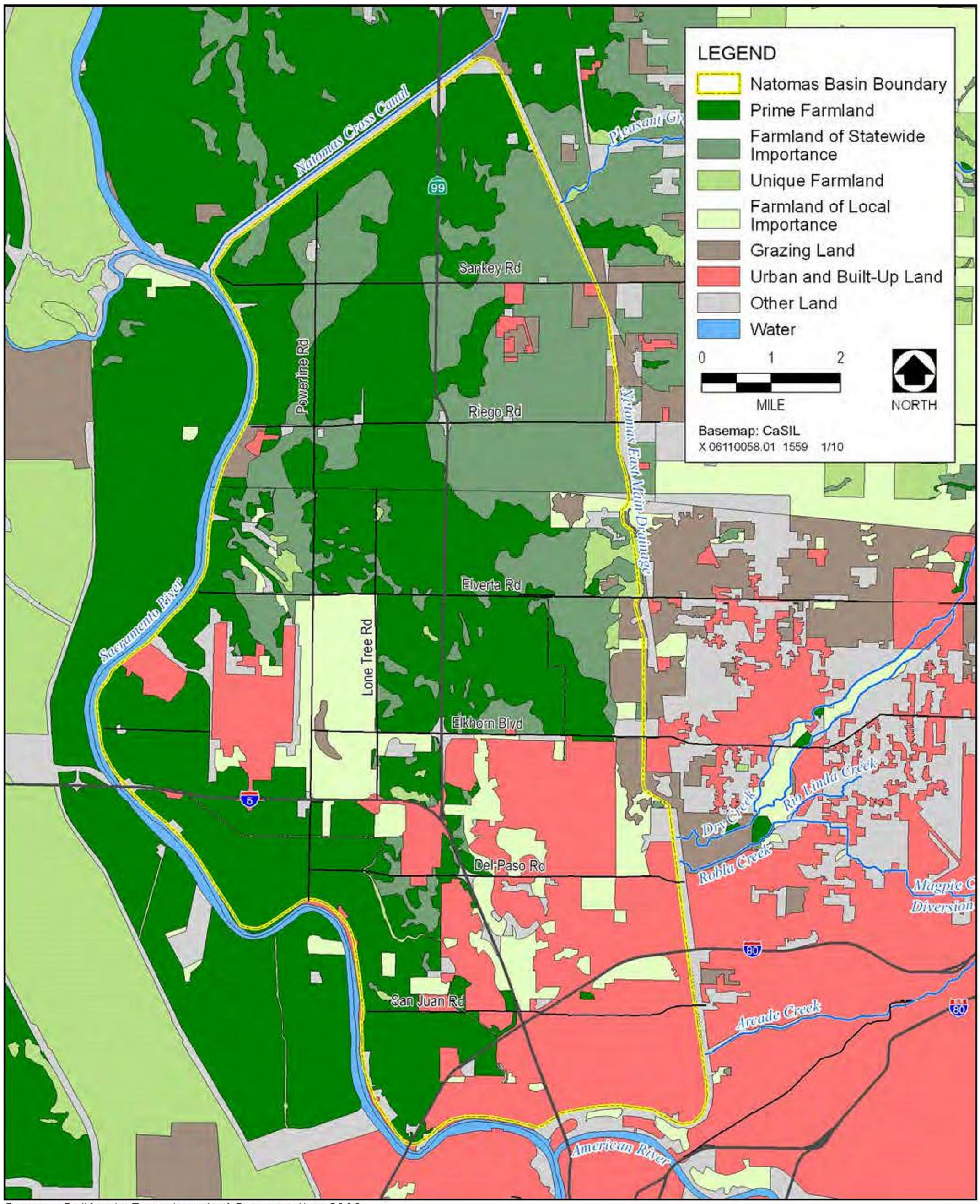
EXHIBIT 1

SHEET ID: G-009	AMERICAN RIVER COMMON FEATURES NATOMAS BASIN REACH C WINDOWS BROOKFIELD BORROW SITE - FIELD 2B EXCAVATION PLAN	U.S. ARMY CORPS OF ENGINEERS SACRAMENTO DISTRICT IN-HOUSE DESIGN 1325 J STREET SACRAMENTO, CA 95814-2922	DESIGNED BY: E. JULIAN; DRAWN BY: E. JULIAN; CHECKED BY: M. ROECTKER; SUBMITTED BY: P. VALENTINE; SIZE: ANSI-D; SPEC NO.: 2017	ISSUE DATE: 04/21/2017; SOLICITATION NO.:; CONTRACT NO.:; DESIGN FILE NO.: 340-0537; FILE NAME:	MARK / DESCRIPTION / DATE

US Army Corps of Engineers

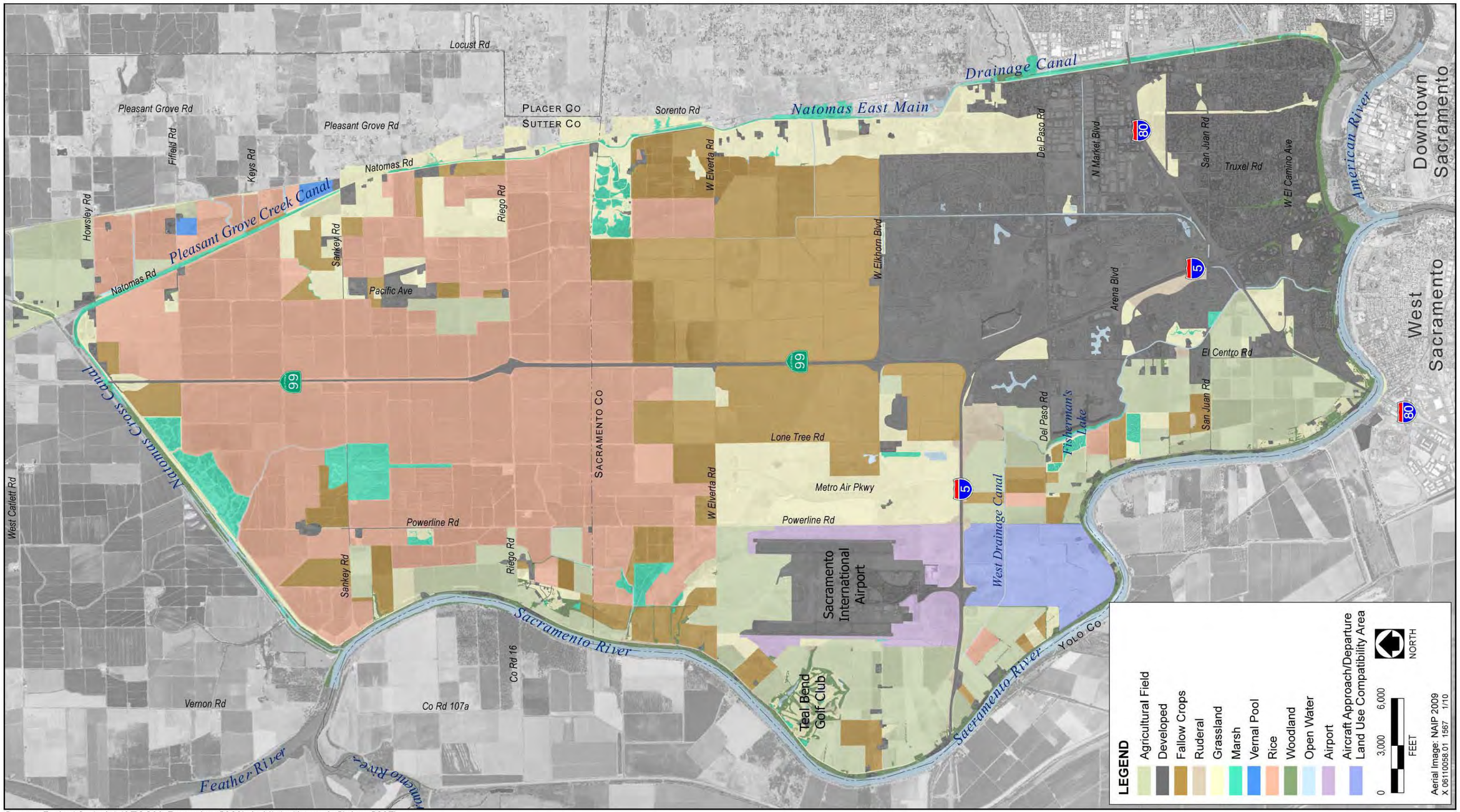
90% SUBMITTAL

Plate 10



Source: California Department of Conservation 2008

Important Farmland in the Project Area **Plate 3-1**



Source: Project footprint (AECOM, December 2009); habitats (Jones & Stokes 2007)

Habitats in the Natomas Basin **Plate 3-3**