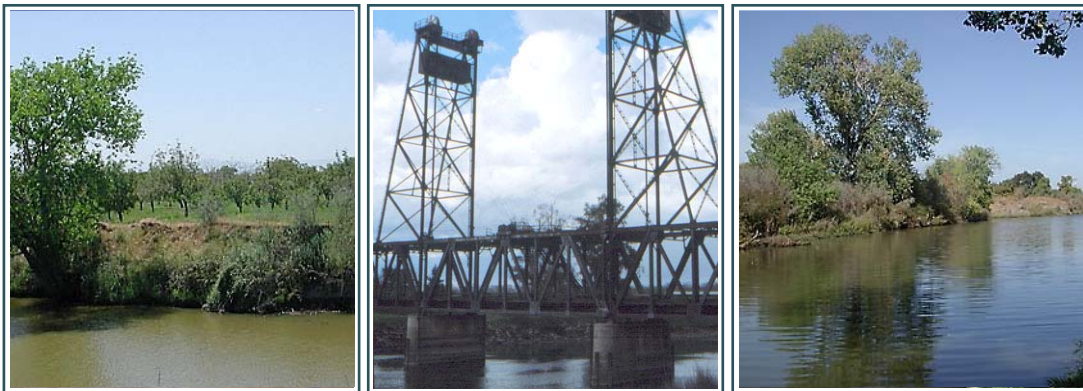


Third Addendum to the
Subsequent Environmental Impact Report

for the

River Islands at Lathrop Project



State Clearinghouse No. 1993112027

February 2012
revised March 2012

AECOM

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Subsequent Environmental Impact Report

for the

River Islands at Lathrop Project

State Clearinghouse No. 1993112027

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February 2012
revised March 2012

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ACRONYMS AND ABBREVIATIONS

| | |
|--------|--|
| AEP | annual exceedance probability |
| BMP | best management practices |
| CDMG | California Department of Conservation, Division of Mines and Geology |
| CEQA | California Environmental Quality Act |
| CFF | City's Capital Facility Fee |
| CFR | Code of Federal Regulations |
| City | City of Lathrop |
| CR-RI | Employment Center |
| ESA | federal Endangered Species Act |
| FEMA | Federal Emergency Management Agency |
| I-5 | Interstate 5 |
| kV | kilovolt |
| LID | Lathrop Irrigation District |
| LMFPD | Lathrop-Manteca Fire Protection District |
| LOS | level of service |
| mgd | million gallons per day |
| MU-RI | mixed-use Town Center |
| NMFS | National Oceanic and Atmospheric Administration, National Marine Fisheries Service |
| PDP | Preliminary Development Plan |
| PG&E | Pacific Gas & Electric Company |
| RD | Reclamation District |
| RH-RI | residential high |
| RID | River Islands Development |
| RL-RI | residential low |
| RM-RI | residential medium |
| SCSWSP | South County Surface Water Supply Project |
| SEIR | Subsequent Environmental Impact Report |
| SJMSCP | San Joaquin County Multi-Species Habitat Conservation and Open Space Plan |
| SSJID | South San Joaquin Irrigation District |
| TDS | total dissolved solids |
| UDC | Urban Design Concept |
| UPRR | Union Pacific Railroad |
| VTM | vesting tentative map |
| WLSP | <i>West Lathrop Specific Plan</i> |
| WRP | Water Recycling Plan |
| WSA | Water Supply Assessment |

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1 INTRODUCTION

1.1 BACKGROUND AND ACTION TRIGGERING THE ADDENDUM

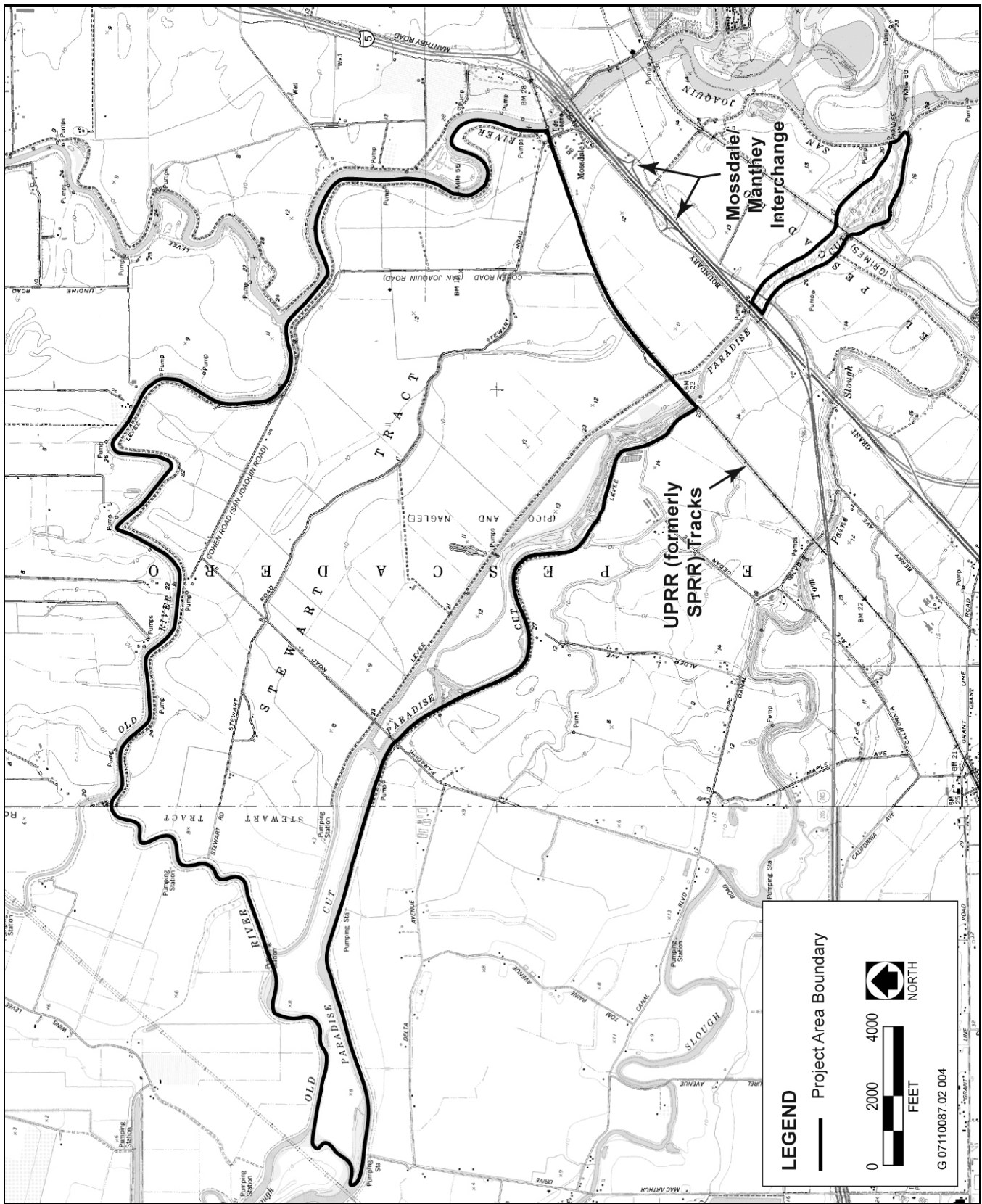
On January 28, 2003, the City of Lathrop (City) certified the Subsequent Environmental Impact Report (SEIR) for the River Islands at Lathrop Project and approved various entitlements, such as amendments to the Lathrop General Plan and West Lathrop Specific Plan (WLSP), cancellation of existing Williamson Act contracts on various parcels, and approval of a vesting tentative map (VTM). The entire project site covers approximately 4,905 acres on Stewart Tract and Paradise Cut (Exhibit 1-1). The proposed project includes, among other uses, an Employment Center, a Town Center, residential districts, golf courses, dock facilities, various flood management elements, construction of a central lake and other water features, and preservation, restoration, and creation of terrestrial and aquatic habitats (Exhibit 1-2). Project construction is split among two primary development phases, Phase 1 and Phase 2, following an approximately 20-year buildout schedule (Exhibit 1-3). The VTM approved at the time of SEIR certification is identified as the Tract 3221 VTM, which is the identifier given by San Joaquin County for the map. The Tract 3221 VTM generally encompasses the Phase 1 development area identified in the SEIR and subdivided approximately 1,500 acres of Stewart Tract to support development in this area.

1.1.1 PHASE 1 OVERVIEW

In July of 2005, the City approved a revised VTM for the project, the Tract 3491 VTM. The Tract 3491 VTM made several alterations to the previously adopted Tract 3221 VTM, including modifications to the development boundary and the phasing of buildout of the Employment Center (Exhibit 1-4). The alterations did not affect the number or type of housing units included in previous approvals or the development components of Phase 2 of the project. The City of Lathrop adopted an addendum to the SEIR (City of Lathrop 2005) prior to approving the Tract 3491 VTM. The addendum confirmed that the Tract 3491 VTM and any altered conditions since certification of the SEIR would not result in any new significant environmental effects, would not substantially increase the severity of previously identified effects, and no new information of substantial importance had arisen since certification of the SEIR.

When the addendum was adopted, the certified environmental document for the River Islands project, for the purposes of the California Environmental Quality Act (CEQA), then consisted of the SEIR as revised and clarified by the addendum.

In December 2006, the project applicant for the River Islands project, Califia, LLC, submitted an application for a new VTM for the project. Tract 3694 was the identifier given by the City of Lathrop for this new VTM (Exhibit 1-5). The Tract 3694 VTM would subdivide approximately 1,793 acres of Stewart Tract to support development of Phase 1 of the project. Approximately 1,500 acres of this area is the same area included in the Tract 3491 VTM. Approximately 76 acres are portions of high-ground corridors along the San Joaquin River and Old River available for development. Approximately 434 acres near Old River included in the Tract 3694 VTM were not proposed for development at the time of its approval and would remain temporary open space until subdivided at a later time. The Tract 3694 VTM includes the same number of housing units as past approvals for Phase 1 of project development (i.e., Tract 3221 and 3491 VTMs), but with a slightly higher ratio of single-family units relative to multifamily units. The Tract 3694 VTM also includes a slightly modified transportation network relative to that identified in the Tract 3221 and 3491 VTMs.



Source: Data provided by Carlson, Barbee & Gibson 2002

Exhibit 1-1

Project Vicinity Map

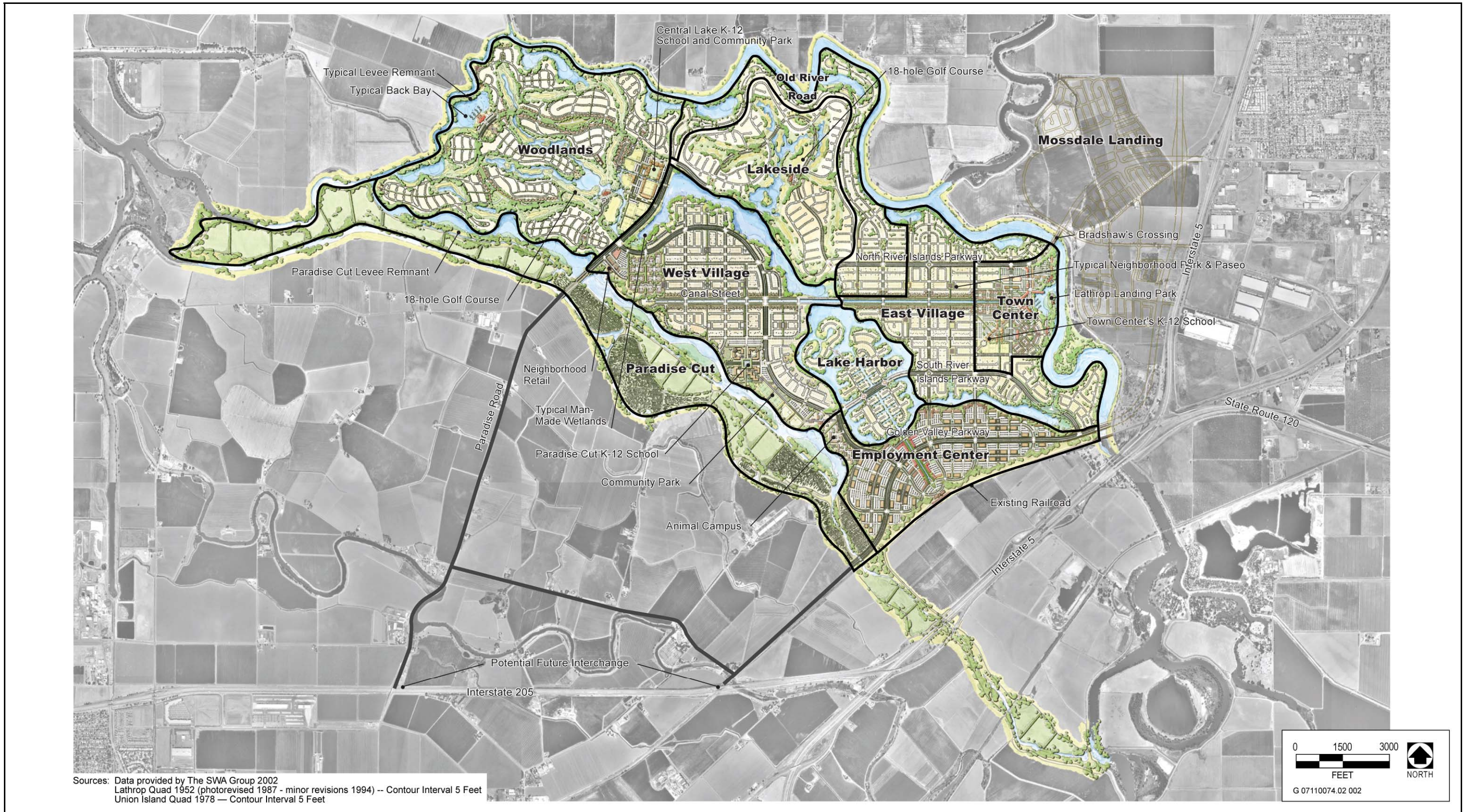
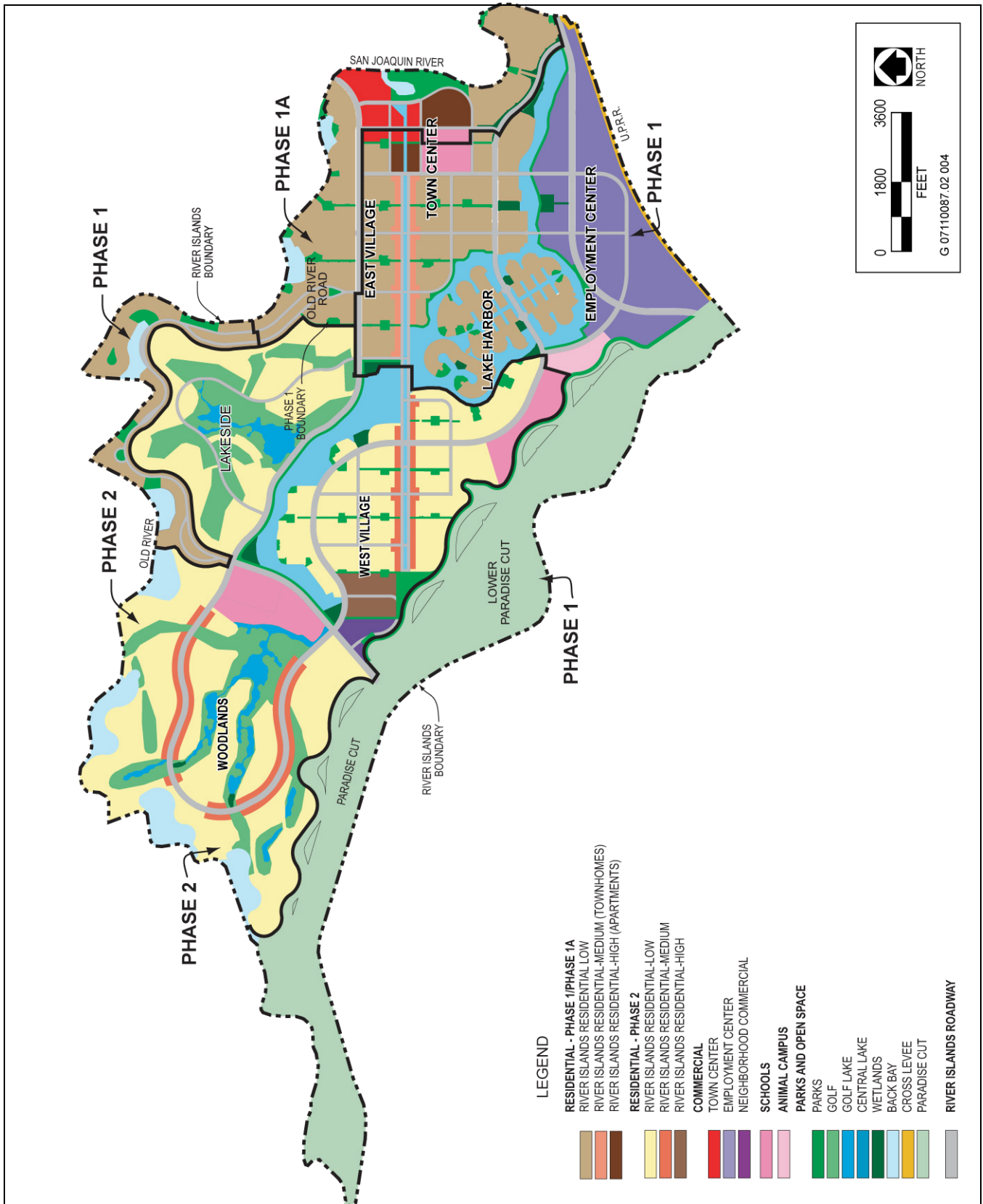


Exhibit 1-2

River Islands at Lathrop Development Concept Plan



Source: Data provided by Carlson, Barbee & Gibson 2002

Exhibit 1-3

SEIR Project Development Phases and Development Districts

A second addendum to the SEIR was prepared for Tract 3694 VTM which concluded that this map would not result in any new significant environmental effects and would not substantially increase the severity of previously identified effects. The second addendum also found that no new information of substantial importance had arisen since certification of the SEIR.

In February 2007, the City approved Tract 3694 VTM for the first phase of development, following adoption of the second addendum. With adoption of the second addendum, the certified environmental document for the River Islands project, for the purposes of CEQA, consists of the SEIR as revised and clarified by both the first and second addenda.

Note that Section 15182 of the CEQA Guidelines outlines a process where an EIR is not needed for residential projects undertaken pursuant to, and in conformity with, a specific plan if the project meets various requirements described in Section 15182. The amended West Lathrop Specific Plan was approved in 2003 and the Specific Plan contemplates the same residential mixed use development that would be implemented within the various VTMs associated with the River Islands project. However, in light of the fact that the River Islands project also includes non-residential uses and there are some minor changes or additions to the EIR certified for the amended West Lathrop Specific Plan, the City of Lathrop has decided to not rely solely on the Specific Plan exemption. Accordingly, the City has prepared addenda to the prior River Islands SEIR rather than using the Section 15182 exemption, and within each addendum has included an analysis to confirm that there would be no new significant or substantially more severe environmental impacts. The City anticipates continuing this approach where modifications to the River Islands project consistent with the use of addenda for CEQA compliance are proposed.

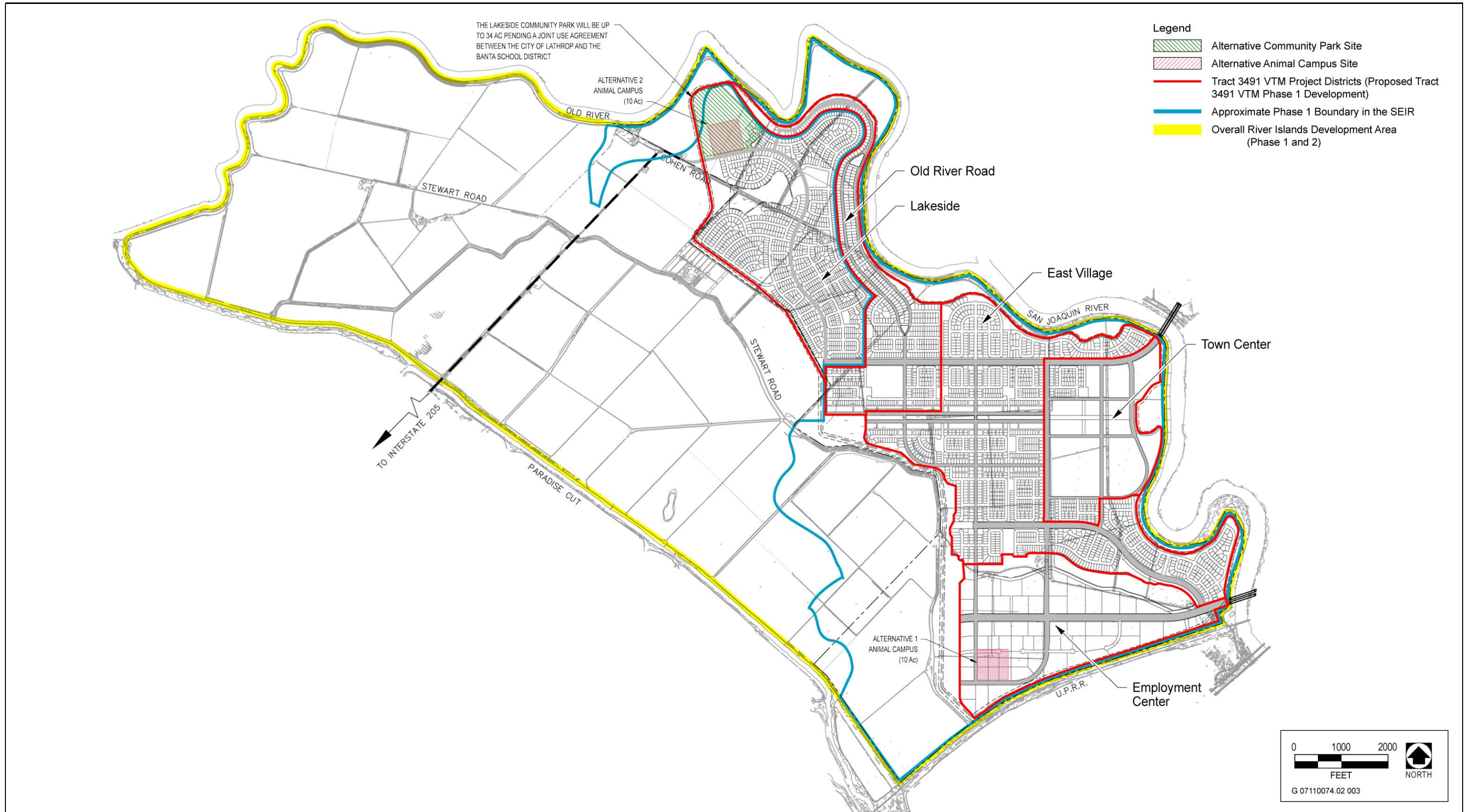
1.1.2 PHASE 2 OVERVIEW

In May 2010, Califia, LLC submitted a large lot VTM for the second phase of development on the Stewart Tract. Identified as the Tract 3765 VTM, it would subdivide 25 existing parcels in the Phase 2 area into 55 large lots and would encompass 2,470 total acres. The proposal is considered a “large lot subdivision,” since it would create “blocks” of land that could be incrementally developed by the applicant or subsequent home builder/developers that could purchase these blocks of land. The Tract 3765 VTM would also set the alignment of major roadways in the Phase 2 area (River Islands Parkway, Golden Valley Parkway and Paradise Road) and clarify the phasing of flood protection improvements for the overall River Islands project. Phasing of the flood protection improvements is discussed in Section 2.5.1.4, “Flood Protection Improvement Modifications”.

The Tract 3765 VTM proposal would be consistent with the West Lathrop Specific Plan (WLSP) zoning and land use designations and would not deviate from any previously approved entitlements for the River Islands project (e.g., the certified SEIR). The ultimate number of dwelling units, commercial and office space, public schools and other improvements would remain the same as previously proposed. However, the City, as the lead agency under CEQA, believes that the clarifications regarding phasing warrant preparation of this third Addendum.

1.1.3 NEPA PROCESS OVERVIEW

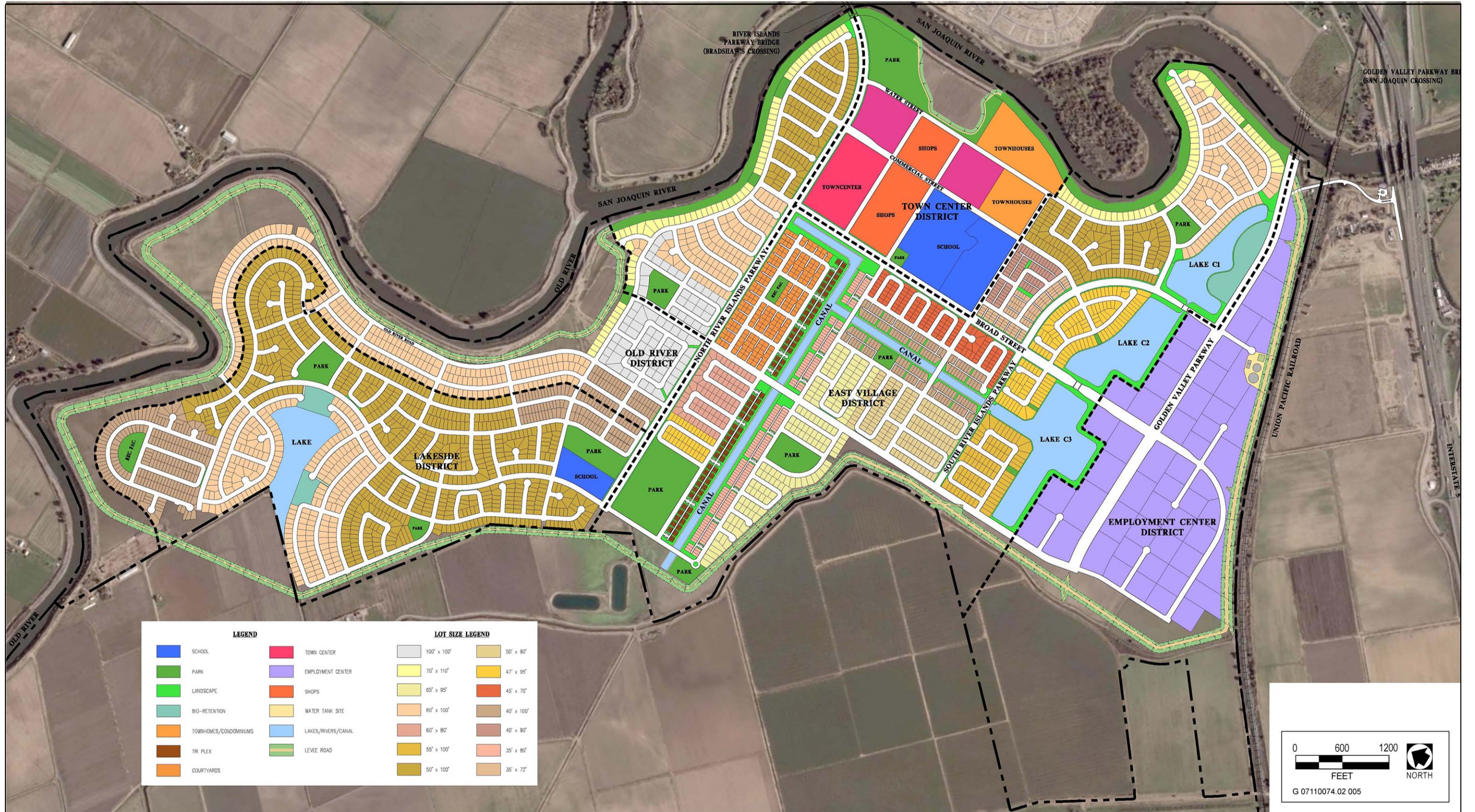
In June 2005 the U.S. Army Corps of Engineers (Corps) published a Notice of Intent to prepare an Environmental Impact Statement (EIS) evaluating Phase 2 of the River Islands Project pursuant to the National Environmental Policy Act (NEPA). The NEPA evaluation was initiated in response to Califia LLC’s application for an individual



Source: Data provided by Carlson, Barbee & Gibson 2005

Exhibit 1-4

Tract 3491 VTM Development and District Boundaries



Source: Carlson, Barbee & Gibson 2007

Exhibit 1-5 **Tract 3694 VTM Development and District Boundaries**

permit under Section 404 of the Clean Water Act. Proposed alterations to existing Federal project levees as part of the project's flood protection improvement modifications would also require Corps authorization under 33 USC 408. The EIS only addresses Phase 2 of the project because Phase 1 can be completed without any Corps authorizations (or other federal authorizations triggering NEPA).

Although a draft EIS has not yet been published, Califia LLC is aware of several differences between the project description included in the SEIR and the project description included in the EIS. These differences have resulted from Corps input during the NEPA process, Califia's response to new or modified regulatory requirements that have arisen during preparation of the EIS, and greater detail available regarding some project elements (e.g., bridges) that has been developed since the SEIR and past addenda were completed.

The differences in the proposed project between the EIS and the SEIR, referred to as "NEPA modifications" or "project modifications," are also evaluated in this Addendum.

1.2 CEQA GUIDELINES REGARDING THE ADDENDUM TO THE SEIR

If, after certification of an EIR, altered conditions, changes, or additions to a project occur, CEQA provides four mechanisms to address these changes: an SEIR, a supplement to an EIR, an addendum to an EIR, and a subsequent mitigated negative declaration.

Section 15162 of the State CEQA Guidelines describes the conditions under which an SEIR would be prepared. In summary, when an EIR has been certified for a project, no SEIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in light of the whole record, one or more of the following:

- (1) substantial changes are proposed in the project that 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 effects;
- (2) substantial changes occur with respect to the circumstances under which the project is undertaken that 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
- (3) 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:
 - (A) The project will have one or more significant effects not discussed in the previous EIR.
 - (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR.
 - (C) 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 measures or alternatives.

- (D) Mitigation measures or alternatives that 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.

Section 15163 of the State CEQA Guidelines states that a lead agency may choose to prepare a supplement to an EIR rather than an SEIR if:

- (1) any of the conditions described above for Section 15162 would require the preparation of an SEIR, and
- (2) only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.

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

The differences between the River Islands project, as described in the 2003 SEIR and the 2005 and 2007 addenda to the SEIR, as compared to the development proposal in the Tract 3765 VTM application and the NEPA modifications, constitute changes consistent with Section 15164 that may be addressed in an addendum to an EIR. As described in Chapter 2 of this document, "Description of the Proposed Action," and Chapter 3, "Affected Environment, Environmental Consequences, and Mitigation Measures," none of the conditions described above for Section 15162 calling for preparation of an SEIR have occurred. The Tract 3765 VTM development proposal and the NEPA modifications do not deviate appreciably from conditions included in required project entitlements. In addition, the 2003 SEIR and resulting Mitigation Monitoring and Reporting Program are still valid for assessing and mitigating identified impacts as a result of the project.

Changes to the project associated with the Tract 3765 VTM proposal and the NEPA modifications and any altered conditions since certification of the SEIR in January 2003, the first addendum to the SEIR in July of 2005 or the second addendum in February 2007 will:

- ▶ not result in any new significant environmental effects, and
- ▶ not substantially increase the severity of previously identified effects.

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

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

Because minor clarifications to the SEIR for the River Islands project are necessary to address the Tract 3765 VTM development proposal and the NEPA modifications, but none of the conditions described in Section 15162 of the State CEQA Guidelines calling for preparation of an SEIR or subsequent mitigated negative declaration have occurred, an addendum to the SEIR for the River Islands project, consistent with Section 15164 of the State CEQA Guidelines, is the appropriate mechanism to address the Tract 3765 VTM development proposal and the NEPA modifications.

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2 DESCRIPTION OF THE PROPOSED ACTION

2.1 SCOPE AND FORMAT OF THE PROJECT DESCRIPTION

The proposed actions evaluated in this addendum to the SEIR for the River Islands project (“Third Addendum”) are (1) the adoption of the Tract 3765 VTM, a large lot vesting subdivision map for development of Phase 2 of the River Islands project consistent with the West Lathrop Specific Plan (WLSP), and (2) implementation of project modifications reflected in the EIS currently being prepared for Phase 2 of the River Islands Project. It should be noted that the Tract 3765 reflects, and is consistent with, applicable project modifications included in the EIS.

For the remainder of this analysis, unless otherwise noted, the term Phase 1 is intended to refer to both Phase 1a and Phase 1b as described in the SEIR and previous addenda. For purposes of this Third Addendum, the proposed Phase 2 actions associated with the Tract 3765 VTM are referred to as the “Tract 3765 VTM development proposal,” or the “Tract 3765 VTM proposal”. Phase 2 actions and modifications that are included in the current NEPA review process are referred to as “NEPA modifications” or “project modifications”. The combination of the Tract 3765 VTM proposal and the NEPA modifications are often collectively referred to as the “proposed project” or “project.” When referring to any project elements or phases as described in the SEIR, the previous addenda to the SEIR for Tracts 3491 and 3694, or current project approvals, the terms “SEIR,” “previous addendum to the SEIR,” “previous addendum,” or “current project approvals” are included in the relevant text.

The purpose of this Third Addendum is (1) to document clarifications in phasing of certain improvements in Phase 2 of the River Islands project as reflected in the Tract 3765 VTM proposal and NEPA modifications when compared to the River Islands project evaluated in the SEIR, the existing adopted addenda to the SEIR, and current project approvals, (2) to document the specific Phase 2 project modifications that are currently being reviewed by the Corps in its NEPA review of the River Islands Phase 2 development (3) to evaluate whether these clarifications and modifications result in new significant impacts, significant changes in the severity of previously identified environmental impacts, or significant changes in the effectiveness or applicability of mitigation measures and project alternatives.

Consistent with this purpose, the project description provided below is intended, in large part, to highlight clarifications, actions, and modifications associated with the Tract 3765 VTM proposal and NEPA modifications when compared to the current project approvals associated with the implementation of Phase 2 of the River Islands project. This Third Addendum will evaluate the minor differences between the Tract 3765 VTM proposal and associated NEPA modifications and the previously certified SEIR, the previous addenda addressing Phase 1, and current project approvals. Typically, where past project proposals and the Tract 3765 VTM proposal are the same, the similarities are not noted.

Overall project development at full buildout is not altered by the project modifications or the Tract 3765 VTM proposal, which covers only Phase 2 of development; analysis of Phase 1 of River Islands is not the subject of this Third Addendum. The primary issues associated with the Phase 2 approvals under consideration only involve a clarification as to the sequence or phasing of the overall River Islands project, certain flood protection improvements, and refinements to descriptions of some project elements, and not the project size, density/intensity of development or other overarching project elements. For a more detailed description of the

River Islands project, particularly for elements included in Phase 1 of the project, the reader is referred to the certified SEIR, the previous addenda to the SEIR, and associated approvals.

2.2 LOCATION AND SETTING

Conditions related to the location and setting for the proposed project have not changed from what is described in the previous addenda or the certified SEIR. However, it should be noted that Section 3.1, “Location and Setting,” in the SEIR describes the location of the River Islands Project site in its entirety, whereas the Tract 3765 VTM development proposal and NEPA modifications only encompass a portion of the project site associated with Phase 2 of project development.

2.3 PROJECT BACKGROUND

Information included in the SEIR related to Stewart Tract planning history, previous development plans for Stewart Tract, and previous environmental documents remains accurate and applicable. Background information relevant to this Third Addendum is supplemented by the certification of the SEIR, the previous addenda addressing the Tract 3491 VTM and Tract 3694 VTM, and associated approvals and entitlements, which were summarized previously in Section 1.1, “Background and Action Triggering the Addendum.”

2.4 PROJECT GOALS AND OBJECTIVES

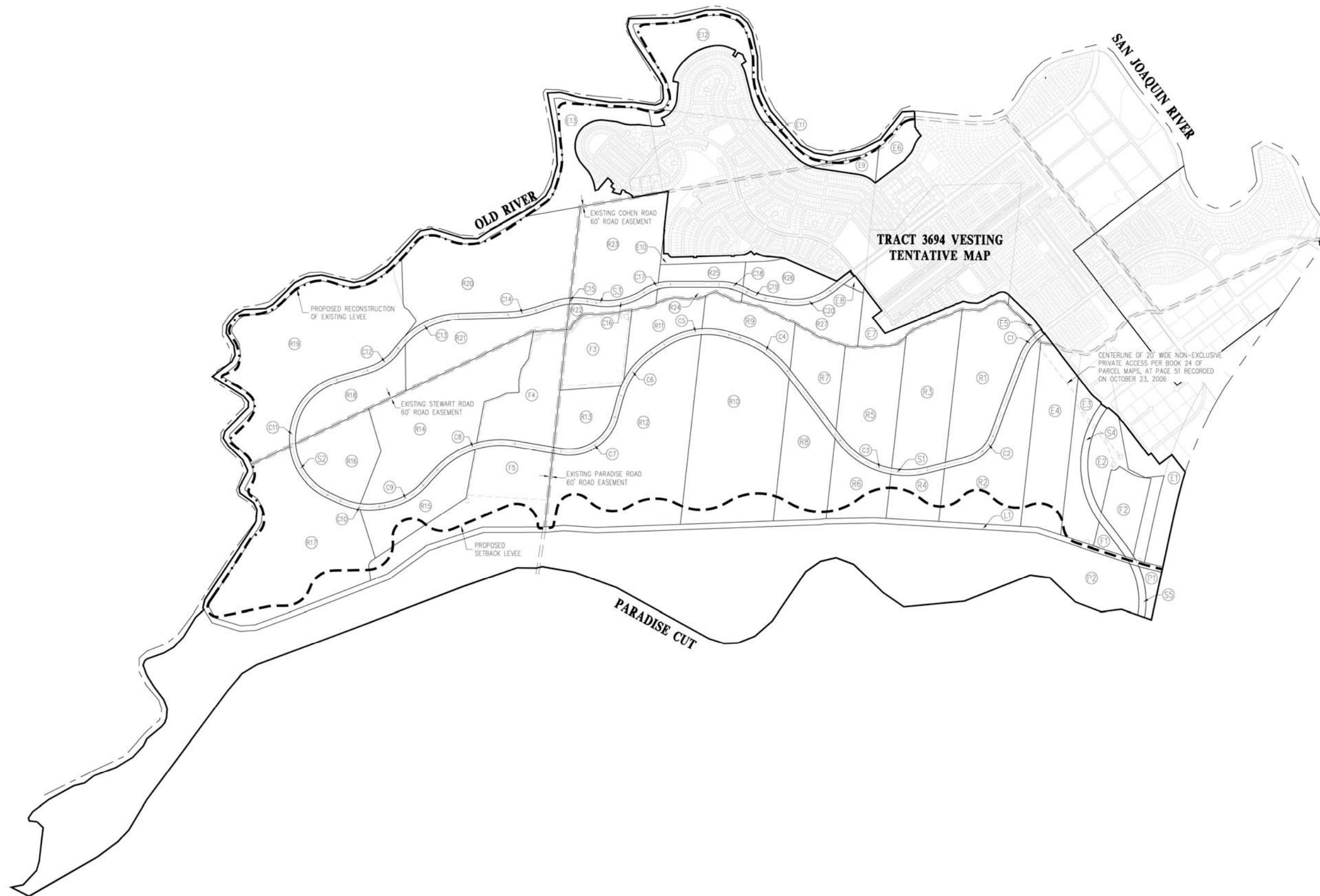
There are no changes in project goals and objectives related to the Tract 3694 VTM proposal or the NEPA modifications.

2.5 PROJECT DESCRIPTION

2.5.1 THE TRACT 3765 VTM

The Tract 3765 VTM proposal includes the subdivision of approximately 3,405 acres of land comprising Phase 2 of the River Islands project (Exhibit 2-1), as well as “remainder land” that was included in the Phase 1 Tract 3694 VTM; these designated remainders were not subdivided into individual lots with the Tract 3694 VTM. Land uses included in this large lot vesting tentative map are RL-RI (residential low), RM-RI (residential medium), RH-RI (residential high), NC-RI (neighborhood commercial), RCO-OS (resource conservation/open space) and CR-RI (employment center). The Tract 3765 VTM area includes the following development districts: West Village, Employment Center (portion), Lakeside (portion), Old River (portion), Woodlands, Lake Harbor and Paradise Cut (see Exhibits 1-2 and 1-3 for development district boundaries). The Tract 3765 VTM proposal is consistent with previously approved Preliminary Development Plans (PDPs) for each of the Lakeside and Old River districts. PDPs for the remaining districts will be proposed with a subsequent small lot vesting tentative map that will need to be consistent with this Tract 3765 proposal.

The Tract 3765 VTM contains 25 parcels to be subdivided into 55 large lots that will eventually contain 6,716 residential units, consisting of 5,861 single-family units and 855 multifamily units. The Tract 3765 VTM proposal does not include the construction of individual units or creation of individual building lots at this time, but would include extension and construction of certain infrastructure in anticipation of this development. This could include flood protection improvements, roadways, utilities and similar “backbone” improvements. With a subsequent



| PARCEL SUMMARY | | | |
|-----------------------|----------------------|--------------|-----------|
| PARCELS | PARCEL CATEGORY | PARCEL LABEL | AREA (AC) |
| 1 | PARADISE CUT | P1 | 6.15 |
| 2 | PARADISE CUT | P2 | 693.94 |
| 3 | 115' EASEMENT PARCEL | L1 | 134.48 |
| 4 | PH2 RESIDENTIAL | R1 | 82.61 |
| 5 | PH2 RESIDENTIAL | R2 | 83.16 |
| 6 | PH2 RESIDENTIAL | R3 | 78.93 |
| 7 | PH2 RESIDENTIAL | R4 | 24.90 |
| 8 | PH2 RESIDENTIAL | R5 | 66.03 |
| 9 | PH2 RESIDENTIAL | R6 | 34.67 |
| 10 | PH2 RESIDENTIAL | R7 | 34.01 |
| 11 | PH2 RESIDENTIAL | R8 | 59.60 |
| 12 | PH2 RESIDENTIAL | R9 | 33.74 |
| 13 | PH2 RESIDENTIAL | R10 | 164.57 |
| 14 | PH2 RESIDENTIAL | R11 | 31.55 |
| 15 | PH2 RESIDENTIAL | R12 | 177.49 |
| 16 | PH2 RESIDENTIAL | R13 | 31.39 |
| 17 | PH2 RESIDENTIAL | R14 | 126.07 |
| 18 | PH2 RESIDENTIAL | R15 | 43.76 |
| 19 | PH2 RESIDENTIAL | R16 | 50.88 |
| 20 | PH2 RESIDENTIAL | R17 | 164.34 |
| 21 | PH2 RESIDENTIAL | R18 | 41.61 |
| 22 | PH2 RESIDENTIAL | R19 | 185.56 |
| 23 | PH2 RESIDENTIAL | R20 | 142.05 |
| 24 | PH2 RESIDENTIAL | R21 | 58.89 |
| 25 | PH2 RESIDENTIAL | R22 | 9.50 |
| 26 | PH2 RESIDENTIAL | R23 | 84.61 |
| 27 | PH2 RESIDENTIAL | R24 | 8.43 |
| 28 | PH2 RESIDENTIAL | R25 | 16.12 |
| 29 | PH2 RESIDENTIAL | R26 | 26.85 |
| 30 | PH2 RESIDENTIAL | R27 | 33.89 |
| 31 | FUTURE ROADS | S1 | 41.73 |
| 32 | FUTURE ROADS | S2 | 39.69 |
| 33 | FUTURE ROADS | S3 | 18.06 |
| 34 | FUTURE ROADS | S4 | 12.28 |
| 35 | FUTURE ROADS | S5 | 3.81 |
| 36 | TRACT 3694 EDGE | E1 | 32.11 |
| 37 | TRACT 3694 EDGE | E2 | 34.50 |
| 38 | TRACT 3694 EDGE | E3 | 31.83 |
| 39 | TRACT 3694 EDGE | E4 | 73.31 |
| 40 | TRACT 3694 EDGE | E5 | 3.50 |
| 41 | TRACT 3694 EDGE | E6 | 14.54 |
| 42 | TRACT 3694 EDGE | E7 | 21.64 |
| 43 | TRACT 3694 EDGE | E8 | 2.66 |
| 44 | TRACT 3694 EDGE | E9 | 9.29 |
| 45 | TRACT 3694 EDGE | E10 | 8.85 |
| 46 | TRACT 3694 EDGE | E11 | 5.62 |
| 47 | TRACT 3694 EDGE | E12 | 50.35 |
| 48 | TRACT 3694 EDGE | E13 | 46.37 |
| 49 | EXISTING SPRAY FIELD | F1 | 4.18 |
| 50 | EXISTING SPRAY FIELD | F2 | 25.90 |
| 51 | EXISTING SPRAY FIELD | F3 | 46.55 |
| 52 | EXISTING SPRAY FIELD | F4 | 60.40 |
| 53 | EXISTING SPRAY FIELD | F5 | 89.08 |
| PHASE 2 SUBTOTAL = | | | 3,405.15 |
| TRACT 3694 LOT AREA = | | | 1,408.34 |
| TOTAL PROJECT AREA = | | | 4,813.49 |

- NOTES:
1. FUTURE ROADWAY PARCELS S1, S2, S3, S4 AND S5 WILL PROVIDE PUBLIC ACCESS TO PROPOSED PHASE 2 PARCELS.
 2. RIGHT OF WAY DEDICATION AND CONSTRUCTION OF A "BACKBONE" ROAD AND LEVEE SYSTEM IS SHOWN FOR PURPOSES OF SERVING THE FUTURE PHASE 2 DEVELOPMENT OF THE RIVER ISLANDS PROJECT.
 3. ALL FUTURE DEVELOPMENT OR FURTHER SUBDIVISION SHALL COMPLY WITH THE REQUIREMENTS OF THE MITIGATION MEASURES, PERFORMANCE STANDARDS AND DEVELOPMENT AGREEMENT.

Source: Carlson, Barbee & Gibson 2012

Exhibit 2-1

Tract 3765 Large Lot Tentative Map

small lot vesting tentative map (such as the Tract 3694 VTM for Phase I), a portion of the Employment Center, a Neighborhood Commercial area, additional residential areas, lakes and water features, schools, and parks and trails would be built.

Major streets included in the Tract 3765 VTM plan are: River Islands Parkway (North and South), Golden Valley Parkway, and Paradise Road. Extensions of existing water, wastewater, natural gas, recycled water and storm drain facilities would likely be constructed to accommodate development past the Phase 1 development envelope.

PROJECT ELEMENTS UNIQUE TO THE TRACT 3765 VTM PROPOSAL

As stated above, two of the purposes of this Third Addendum are (1) to document minor changes and clarifications in Phase 2 of the River Islands project as reflected in the Tract 3765 VTM proposal when compared to the River Islands project evaluated in the SEIR and current project approvals, and (2) to evaluate whether these differences result in new significant impacts, significant changes in the severity of previously identified environmental impacts, or significant changes in the effectiveness or applicability of mitigation measures and project alternatives.

The differences between the Tract 3765 VTM proposal and the River Islands project evaluated in the SEIR and current project approvals are described below. These differences are divided into two categories: (1) project phasing and (2) modification of development envelope. These unique characteristics of the Tract 3765 VTM proposal are the focus of the environmental analysis provided in Chapter 3, “Affected Environment, Environmental Consequences, and Mitigation Measures.”

Project Phasing

In the River Islands SEIR, Phase 2 of the project included development of the West Village, Lakeside and Woodlands Districts (Exhibits 1-2 and 1-3). With the changes approved with the Tract 3694 VTM and second addendum, minor changes were made to the districts affected by Phase 1 development. As a result, Phase 2 and this proposal include only a portion of the Lakeside District, all of the Lake Harbor District, a portion of the Employment Center District and a portion of Old River District, along with the West Village and Woodlands Districts that remain unchanged. The WLSP and related approvals allow for the “shifting” of the timing of development and infrastructure in the various districts, depending on market conditions, improvement phasing and other factors.

Additionally, flood protection improvements associated with Paradise Cut were assumed to be completed before the development of Phase 2 in the SEIR. This was because of the construction of the cross levee extension and other improvements that would prevent the Phase 2 area from providing flood storage. As explained in Section 2.5.2.4 below, restoration of flood flows from Reclamation District 2107 into the project area from the replacement of the existing box culverts in the Union Pacific Railroad (UPRR) embankment with a trestle mitigate for the loss of flood storage and allow for Paradise Cut flood protection improvements to be deferred to the end of Phase 2 rather than the beginning as first envisioned. Phasing of other levee improvements for Old River and Paradise Cut could also be modified in accordance with the WLSP and related approvals, including the construction of seepage berms with reconstructed levee segments initially, and the placement of engineered fill in addition to these improvements at a later date to create the project’s superlevees as defined in the SEIR and previous addenda.

Modification of the Development Envelope

In the River Islands SEIR, Phase 2 of the project covered approximately 2,159 acres encompassing the West Village, Lakeside and Woodlands Districts. The previous Phase 1 proposals (Tract 3491 VTM and Tract 3694 VTM) modified acreages for the project overall (since these proposals envisioned different development envelopes for Phase 1, affecting Phase 2). Ultimately, the Tract 3694 VTM and second addendum modified the Phase 1 boundary to cover approximately 1,793 acres encompassing the East Village and Town Center districts and portions of the Old River Road, Lakeside, and Employment Center districts (Exhibits 1-2, 1-3, and 1-5). The addendum evaluating the Tract 3694 VTM proposal found that these modifications did not result in new significant impacts or a substantial increase in the severity of previously identified significant impacts, or trigger other criteria requiring an SEIR or supplemental EIR (State CEQA Guidelines Sections 15162 through 15164). The resulting acreage available for development within Phase 2 is 3,405 acres of which approximately 385 acres were designated remainders under the Tract 3694 VTM.

Additionally, the available building envelope slightly increases with the elimination of all back bays along Old River and all back bays on the San Joaquin River other than Lathrop Landing (see the subsection titled “Elimination of Back Bays and Avoidance of Special Aquatic Features” in Section 2.5.2 below for more details regarding back bays). These back bays are not proposed with the Tract 3765 VTM because of the potential fish impacts identified by the National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS), as further described below. The Phase 2 building envelope has also been modified to avoid wetland features on the project site, as discussed in more detail in the subsection titled “Elimination of Back Bays and Avoidance of Special Aquatic Features” in Section 2.5.2 below.

The Tract 3765 VTM area also includes existing sprayfield areas used for recycled water disposal associated with the development of Phase 1 of approximately 226 acres. These areas will remain in use for recycled water disposal, but may be developed in the future for residential and non-residential development as alternative sites are acquired and permitted. The underlying land use designation and zoning of the affected properties as established by the WLSP, and proposed development as indicated in the SEIR, are not proposed to change with this proposal.

2.5.2 NEPA MODIFICATIONS

As stated above, two of the purposes of this Third Addendum are to document modifications to the project as reflected in the EIS currently in preparation and to evaluate whether these modifications result in new significant impacts, significant changes in the severity of previously identified environmental impacts, or significant changes in the effectiveness or applicability of mitigation measures and project alternatives.

The differences between the River Islands project evaluated in the SEIR and current project approvals and the project description included in the EIS are described below. These differences are divided into four categories: (1) elimination of back bays and avoidance of special aquatic features, (2) modification of boat docks, (3) greater detail regarding bridge construction, and (4) flood protection improvements. These NEPA modifications, as reflected in the EIS, are the focus of the environmental analysis provided in Chapter 3, “Affected Environment, Environmental Consequences, and Mitigation Measures.”

ELIMINATION OF BACK BAYS AND AVOIDANCE OF SPECIAL AQUATIC FEATURES

Elimination of Back Bays

In response to comments received by NMFS and USFWS during Endangered Species Act (ESA) consultations with these agencies, all back bays originally proposed along the San Joaquin River and Old River, with the exception of the Lathrop Landing Marina back bay, are no longer proposed as part of the River Islands project. This approach is reflected as part of the proposed action in the EIS.

The project as described in the SEIR included nine back bays, two along the San Joaquin River and seven along Old River. These constructed water features were intended to serve as a recreational amenity for project residents (e.g., provide boat docks, fishing opportunities) as well as provide an opportunity for restoration of shaded riverine aquatic habitat on levee remnants remaining after back bay construction. However, NMFS and USFWS expressed concerns that back bays could result in the creation of warm water fishery habitat that could promote and concentrate populations of predatory fish that could adversely affect threatened and endangered fish species (e.g., salmonids). Therefore, Califia LLC removed the back bays, other than the Lathrop Landing Marina back bay, from the project design.

Removal of the back bays from the project provides more developable area on the project site than considered in the SEIR, as what was once considered an open water feature would remain dry land. However, additional housing units or other development beyond the total considered in the SEIR would not be constructed on former back bay area. Already planned development would either be “spread” into the former back bay land, or the land would be used for open space, recreation, or similar uses.

The Lathrop Landing Marina back bay could also be modified with this proposal. Should the construction of the marina and associated improvements prove to be infeasible (economically or otherwise), the back bay area would become an internal lake within the Town Center District and the existing Federal project levee would remain in place without being breached. Group boat docks on the waterside of the existing levee would be constructed in lieu of the boat docks located in the back bay marina. The recreational amenity that Lathrop Landing provides would not substantially change in this scenario, but would create fewer impacts to the river system by making the back bay an internal lake rather than external water feature.

Avoidance of Special Aquatic Features

The Paradise Cut setback levee alignment as described in the SEIR and subsequent addenda would require the filling in of a small pond located north of the UPRR rail line and near the existing Federal project levee (see Exhibit 2-2). This pond qualifies as a waters of the U.S. under Section 404 of the Clean Water Act (CWA), placing it under the jurisdiction of the Corps regulatory branch. With the project as described in the EIS (and consistent with the Tract 3765 VTM proposal), the setback levee location would be modified to avoid this small pond and allow for the pond to remain as a project amenity and provide protection from flooding. The change in the footprint in the setback levee relative to that described in the SEIR is very small and would not affect the flood water carrying capacity of Paradise Cut as proposed and would allow for the same acreage of created waterways and habitat areas as first proposed. In addition, the development footprint described in the EIS has been modified to allow preservation of an emergent wetland in the Employment Center area (Exhibit 2-2). This emergent wetland also qualifies as a waters of the U.S. under Section 404 of the CWA.

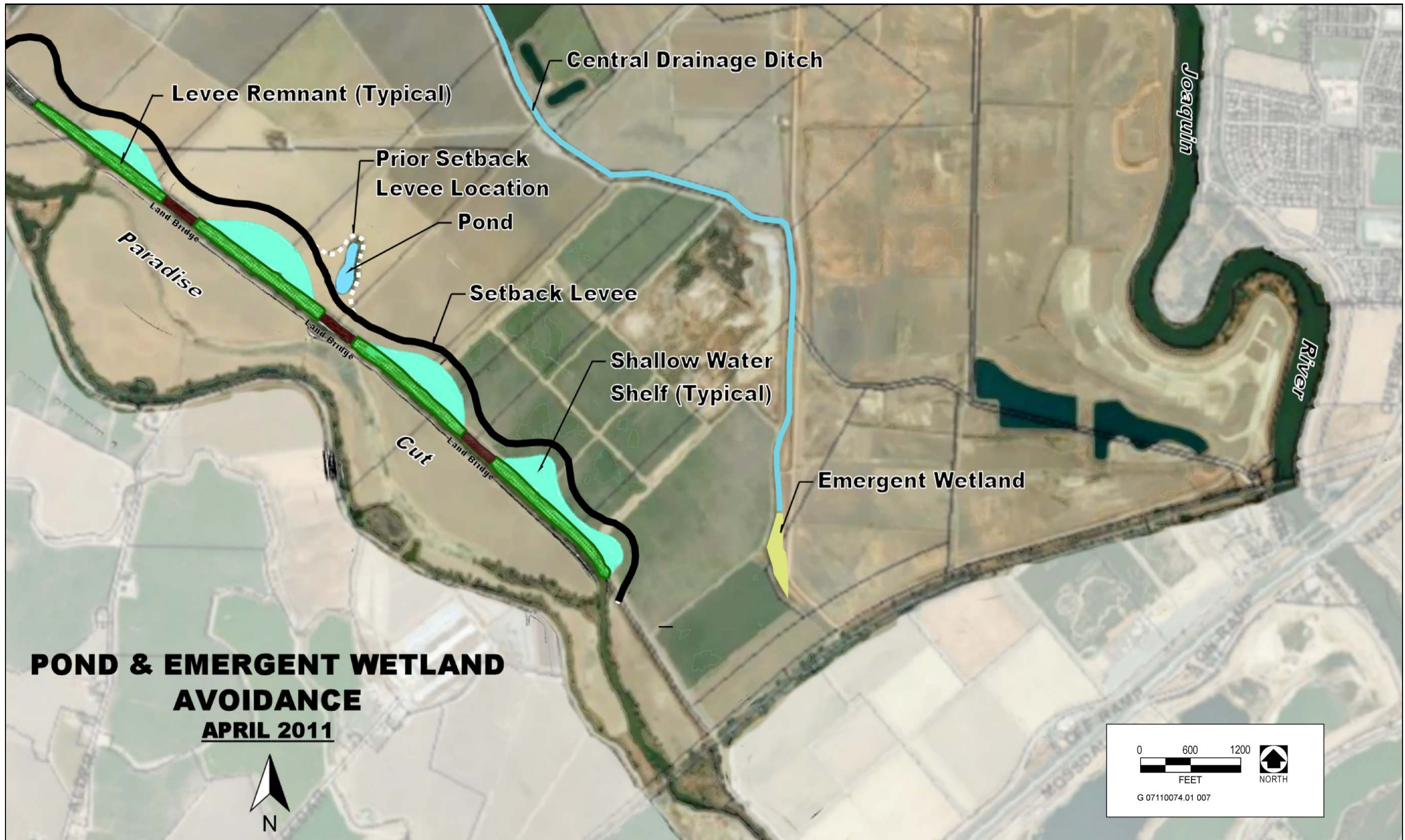
MODIFICATION OF BOAT DOCKS

In response to comments received by NMFS and USFWS during ESA consultations with these agencies, the project has been modified since preparation of the SEIR and addenda to place only group boat docks (i.e., docks that can berth multiple boats) around the perimeter of the project rather than individual docks (i.e., docks that berth a single boat). NMFS and USFWS have indicated that fewer but larger group docks would have less potential for adverse affects on threatened and endangered fish species than more, but smaller, individual docks. This approach is reflected as part of the proposed action in the EIS.

Rather than placing both individual and group boat docks on the San Joaquin River and Old River (mostly within back bays) and in Paradise Cut, as identified in the SEIR, the proposed action addressed in the EIS places group docks (5 to 10 berths per dock) at strategic locations along these waterways. The footprint of these docks would be larger than the individual docks, but there would fewer dock berths overall (675 vs. 921) and therefore less cumulative impacts. Table 2-1 below summarizes the changes in boat docks between the SEIR and EIS.

| Table 2-1 Changes in River and Paradise Cut Boat Docks between the SEIR and EIS | | | | | | |
|--|------------------------------|-------------|--------------|--|------------------|--------------|
| Dock Area | Docks Included in EIS | | | SEIR Individual/Group Docks ³ | | |
| | Berths per Dock ² | Group Docks | Total Berths | Group Berths | Individual Docks | Total Berths |
| Lathrop Landing/Back Bay(s) ¹ | 5 | 20 | 100 | 100 | 256 | 356 |
| Paradise Cut | 5 | 40 | 200 | 70 | 130 | 200 |
| River Shoreline (Old River and San Joaquin River) | 5 | 75 | 375 | 0 | 365 | 365 |
| Totals | | 135 | 675 | 170 | 751 | 921 |
| Notes: | | | | | | |
| 1. The proposed 100 berths within the Lathrop Landing Marina could also be placed on the shoreline should Lathrop Landing become an internal water feature. | | | | | | |
| 2. Group docks may contain between 5 and 10 berths per dock, (resulting in less group docks overall), since the total number of berths of 675 would remain constant. The table assumes 5 berths per dock. | | | | | | |
| 3. Existing SEIR related approvals allow for the placement of both individual and group docks within back bays and/or river shorelines. All back bays, other than Lathrop Landing, are removed in the EIS proposed action. | | | | | | |

The EIS also includes the installation of publicly accessible fishing piers interspersed between the docks along the San Joaquin River, Old River, and Paradise Cut. Fishing piers were not assumed along the rivers and Paradise Cut in the SEIR and subsequent addenda, but were included as potential recreational amenities in the back bays. Per the EIS, approximately one fishing pier would be installed for each five group docks. Fishing piers would cover approximately 600 square feet of surface area and would not extend into the water farther than the group docks so as not to interfere with boat navigation.



Source: River Islands 2011

Exhibit 2-2

NEPA Modifications to Avoid Special Aquatic Features

FURTHER DETAILS ON BRIDGE CONSTRUCTION

As described in the SEIR, the River Islands Project includes four new bridge crossings to provide improved access between the project site and neighboring areas (Exhibit 1-2): four bridge lanes where the new River Islands Parkway crosses the San Joaquin River at Bradshaws Crossing; four bridge lanes where the new Golden Valley Parkway crosses the San Joaquin River; four bridge lanes where the Golden Valley Parkway crosses Paradise Cut; and an additional two-lane bridge adjacent to the existing Paradise Road bridges over Paradise Cut. These bridges are planned components of the City of Lathrop's regional road network.

Since completion of the SEIR, further detail has become available regarding the design and construction methods for bridges included as part of the River Islands Project. All design and permitting for the Bradshaws Crossing Bridge is complete and construction by the City of Lathrop is in progress. Design efforts have progressed significantly for the remaining bridges. The added detail on bridge design and construction methods provided below is consistent with information included in the EIS and is also consistent with the assumptions and analysis in the SEIR. The new information is, in effect, a refinement to the information already included in the SEIR. Because all necessary permits and entitlements have already been received for the Bradshaw's Crossing Bridge and the City of Lathrop has initiated construction, it is not included in the analysis associated with this addendum.

San Joaquin River Crossing—New Golden Valley Parkway Bridge

The new Golden Valley Parkway Bridge across the San Joaquin River would be similar to the City of Lathrop's new bridge at Bradshaw's Crossing. When completed, it would consist of two parallel bridge structures, one for inbound traffic and one for outbound. Each bridge would be approximately 600 feet long and 44 feet wide, providing a total of four travel lanes (two per bridge), along with shoulder areas approximately 10 feet wide on each side to allow emergency access.

Although both bridges may be constructed at the same time, bridge construction is more likely to be phased on the basis of need. Assuming this is the case, one of the Golden Valley Parkway bridges would be constructed during the earlier stages of the project (anticipated approximately 2018) and would initially accommodate two-way (inbound plus outbound) traffic. As the project's residential construction proceeds and traffic increases, the second bridge would be added and both bridges would be converted to one travel direction (inbound or outbound only) (anticipated approximately 2022).

Although further detail is available regarding the construction methodology for the bridges since the time the SEIR was prepared, this detail does not change the conclusions in the SEIR as further discussed in Section 3 of this Addendum. Both new bridges are currently proposed as either cast-in-place spans or as pre-cast bridge segments. These design options are described in more detail below in the discussion of construction methods. Each bridge would be supported by four cast-in-place concrete column footings likely supported on cast-in-steel-shell (CISS) or cast-in-drilled-hole (CIDH) concrete piles. The CIDH construction method is used to construct deep foundation piles without pile driving. Column diameter would be approximately 8 feet, and the maximum pile shaft diameter would be 10 feet. This design was selected to minimize disturbance of aquatic habitat. An alternative approach using rectangular pile caps with multiple small-diameter piles was considered but rejected because it would require greater disturbance of aquatic habitat.

The west abutment for the new bridges would be situated on the existing top of the levee and would consist of short seat-type abutments, likely supported on 24-inch to 36-inch diameter CIDH concrete piles. The east abutments are planned for the landside of the existing levee and are also expected to consist of short seat-type abutments supported on 24-inch to 36-inch diameter CIDH piles. Alternatively, if access can be provided for RD 17 across Golden Valley Parkway, then the east abutment could be situated on the existing levee top. In either case, the abutments would be designed to provide approximately 16 feet of clearance from the levee road to the underside of the bridge superstructure.

Runoff from the new bridges would be collected by deck drainage systems and routed through the bridge abutments to the new Golden Valley Parkway storm drain. Stormwater drainage from the bridges would not be allowed to discharge to the River; the bridge decks would be contoured to ensure that all runoff is effectively captured by the deck drainage system for delivery to the storm drain system.

Riprap is expected to be necessary to protect the new bridge abutments and adjacent levee segments from river erosion. As much as 138,000 square feet of new riprap may be added to the existing riprap protection below the new bridge crossing, extending as much as 150 feet upstream and downstream of the bridges, totaling approximately 430 linear feet of bank protection. The new riprap would likely be placed to a depth of 3–4 feet for a total of approximately 21,000 cubic yards. However, no riprap would be placed in areas verified as wetlands by the Corps, and no new riprap would be placed below the river's ordinary high water mark (or mean high tide mark) unless existing riprap below that mark is insufficient to prevent scouring.

Construction Process

There are two different construction processes described below that are being considered for construction of the Golden Valley Bridge over the San Joaquin River. The implementation of the construction process would be decided in concert with the various Federal, State and local agencies that have jurisdiction over the bridge's construction:

1. Cast-in-Place Bridge Segments.

The first construction process considered would entail the use of cast-in-place bridge spans that would require installation of a system of temporary falsework (i.e., temporary supports, scaffolding, and other structures supporting bridge construction) beneath the footprint of the bridge end spans, extending approximately 40 feet into the center span. The falsework system is expected to include driven steel pipe piles. Individual piles would likely be limited to a maximum diameter of about 20 inches and installed in a grid pattern with spacing ranging from 10-feet to 30-feet. No falsework is permitted over the river's main navigation channel, which is approximately 100 feet wide and corresponds to the main center spans of the bridges.

A trestle system would be needed to provide equipment access over the river for construction of the falsework, CISS/CIDH piles, and cast-in-place footing columns. The trestle system would probably be constructed along each side of the actual bridge alignment. Each trestle would be approximately 35 feet wide and—like the falsework system—the trestles would extend approximately 40 feet into the main bridge span. The trestle system would be supported by a foundation consisting of driven steel pipe piles in a grid pattern similar to that used for the falsework. As described for the falsework system, no trestle structure is permitted over the river's main navigation channel. In addition, the falsework and trestle system are expected to clear the 1% (100-year) water surface elevation.

If necessary, the trestle could be constructed beneath the footprint of the proposed structure and converted to falsework after the bridge foundations have been constructed. This would reduce the number of temporary driven piling in the river. The piles would serve a dual purpose, first as support of the temporary construction equipment trestle and then to support the falsework for construction of the cast-in-place structure. This may be necessary to limit temporary impacts within the river, if required by Federal and/or State resource agencies.

The total number of driven steel piles required to support the falsework and trestle systems is expected to be in the range of 250–300, but could be lessened if necessary to meet State and Federal construction noise level standards as described above. The falsework and trestle piles would be driven using a diesel impact and/or a vibratory hammer, with appropriate noise mitigation (e.g. bubble curtains) if deemed necessary. Following construction, the piles would be removed using a vibratory hammer. Any piles that cannot be removed would be cut off 2- to 5-feet below the mud line and left in place.

Construction of the permanent in-river piles and columns will require the work areas at the pile locations to be isolated (i.e. dewatered) from the river using cofferdams. The cofferdams may consist of sheet piling or oversized temporary casing embedded in the river bottom using a vibratory hammer. Installation is expected to take about 10 days. The dimensions of each work area would be approximately 15 feet by 15 feet (worst case), for an area of approximately 225 square feet per column. Work areas would then be dewatered, and work would take place in the dewatered, cofferdammed area. The cofferdams would be removed upon completion of columns and permanent piles, requiring roughly 5 days.

To minimize noise, the permanent piles will likely consist of CIDH piles constructed with temporary casing. The temporary casing would be installed and removed using “casing oscillator” technology. The “casing oscillator” technology uses hydraulic actuating arms to clamp onto segments of temporary steel casing and pushes the casing into the ground using a back and forth twisting motion (as opposed to driving with an impact hammer). After the temporary casing is installed, the pile shaft can then be drilled, as the casing potential is mitigated through the temporary casing. After drilling, the temporary steel casing segments are removed as the concrete for the pile is poured. Installing and removing the temporary casings, drilling, pouring, and constructing the permanent piles and columns is expected to take about 45 days.

Construction of the west footing on the existing levee top would require excavation of approximately 1,400 cubic yards of levee material. If the east abutment is also constructed on the existing levee top, an additional 1,400 cubic yards of excavation would be required for the east abutment. All spoils would be used onsite for fill dirt on the high-ground perimeter.

2. Pre-Cast Bridge Segments.

Construction of the bridge using this process would require installation of temporary trestle system, but no extensive falsework beneath the footprint of the bridge end spans. The design of the trestle system is expected to consist of driven steel pipe piles. As discussed above, the trestle system would not be permitted over the river’s main navigation channel and is expected to clear the 1% (100-year) water surface elevation. The trestle system would be needed to provide equipment access over the river for construction of the CIDH piles and cast-in-place footing columns.

In all, a total of about 100-150 driven steel piles are expected to be necessary to support the trestle systems in this scenario. The trestle piles would be driven using a diesel impact hammer. Following construction, the piles would

be removed using a vibratory hammer. Any piles that cannot be removed would be cut off 2 feet below the mud line and left in place. This construction process would yield less pile driving and hence, less noise and vibration than the cast-in-place bridge segment process.

The main bridge piers would be constructed and riprap installed in a similar manner as described above for the Cast-in-Place Bridge Segments method. The major difference between this Pre-Cast Bridge Segments method and the Cast-in-Place Bridge Segments method is the placement of bridge's superstructure. Rather than utilizing cast-in-place bridge segments with underlying falsework, pre-cast, pre-stressed segments would be utilized that would allow for the bridge's foundation and abutment systems to be constructed in advance of the superstructure and possibly allow deferral of the superstructure to a later date. A total five pre-cast segments would be required to span the entire river channel, with two pre-cast segments used as the end spans and a fifth segment placed over the center of the river channel, similar to what was described for the cast-in-place system above.

Paradise Cut Crossing—New Golden Valley Parkway Bridge

The proposed Golden Valley Parkway alignment over Paradise Cut would consist of two parallel bridges, one for inbound traffic and one for outbound. The complete structure would provide a total of four travel lanes (two per bridge), along with shoulder areas to allow emergency access. Each bridge will be approximately 41- to 42-feet wide. Runoff from the new bridges would be collected by deck drainage systems and routed through the bridge abutments to new storm drain systems. Stormwater drainage from the bridges would not be allowed to discharge to Paradise Cut; the bridge decks would be contoured to ensure that all runoff is effectively captured by the deck drainage system for delivery to the storm drain system.

Paradise Cut consists of two well defined streams within a very wide floodplain. At the Golden Valley Parkway crossing a long causeway bridge is required primarily to avoid impeding flood waters that may pass through the channel but also to preserve a wildlife corridor for the riparian brush rabbit, and endangered species. The parallel bridges will each be approximately 1,110-feet long.

The parallel bridges are likely to consist of multi-span cast-in-place concrete flat slab bridges. A cast-in-place box girder structure, with larger span lengths, and less supports within the floodplain may also be considered. The box girder option would require a deeper superstructure, which in turn would provide less clearance above the floodplain than a flat slab superstructure. Because Paradise Cut also serves as a wildlife corridor, required minimum vertical clearances to the structure for wildlife are expected to be specified in applicable resource agency permits. It is expected that the cast-in-place concrete flat slab would have greater permanent impacts on environmental resources compared to the box girder bridge because it will have many more supports within Paradise Cut. Therefore, this description, and further analysis in Chapter 3 of this Addendum, is limited to the cast-in-place concrete flat slab alternative, which may be constructed with driven, drilled, or "twisted" piles.

Rock slope protection will likely be required to protect the abutments from scour and erosion. Up to 40,000 square feet of riprap may be required for abutment protection. Although a scour analysis has not been performed as of yet, it is anticipated that the rock slope protection may extend up to 200 feet upstream and downstream of the bridges, for a total of approximately 520 lineal feet of protection. It is anticipated that rock slope protection will be placed to a depth of 3 to 4 feet for a total of approximately 6,000 cubic yards of material. Rock slope protection will not be placed in areas verified as wetlands by Corps and will not be placed below the mean high water marks of Paradise Cut unless existing riprap below that mark is insufficient to prevent scouring.

Construction Process

Within Paradise Cut, there are two well defined streams. A temporary trestle system will likely be constructed alongside each of the parallel bridges across each of the streams. Each trestle system would be approximately 34-feet wide and 350 feet long. The trestle system will likely require a steel pile foundation in a grid pattern layout with spacing ranging from 10- to 30-feet. The piles will be limited to approximately 20-inches maximum in diameter. Total number of steel piles for the temporary trestle system is anticipated to be in the range of 125-135 piles. The piles will be installed with an impact or vibratory hammer and removed after construction with a vibratory hammer, or cut off below the mud line and abandoned in place.

The superstructure of the bridge itself is likely to consist of a cast-in-place concrete slab approximately 1'-10" thick. The abutments will likely be supported on driven steel pipe piles, driven precast concrete piles, or CIDH piles, with a maximum diameter of 24". The piers are likely to consist of driven precast concrete piles or CIDH piles, with a maximum pile diameter of 30". Conceptually, the bridge piers will be spaced at approximately 44-feet apart and will likely consist of 15-inch to 18-inch driven precast pre-stressed concrete piles or 30" diameter CIDH piles and pile extensions depending on foundation recommendations made by the geotechnical engineer.

Construction of the driven or cast-in place piles and pile extensions within the defined streams of Paradise Cut will require that cofferdams (approximately 50-feet by 15-feet at each pier) consisting of steel sheet piling be constructed at the pile/column locations so that the columns can be constructed in dry conditions above the mud line. The cofferdams will provide the added benefit of reducing acoustic impacts to aquatic life during pile construction operations. The sheet piling will be installed using vibratory hammers and can be expected to take approximately 20 days to complete. The sheet piling will be removed upon completion of the permanent piles and columns. Sheet piling removal is expected to take approximately 15 days. The permanent piles, if driven, will be driven with an impact hammer, requiring approximately 30 minutes per pile for a total estimated driving time of 5 weeks. If the piles are to be CIDH piles, it is expected that the piles can only be constructed at a rate of 4 piles per day and will require a total of approximately 10 weeks to complete. The total plan area of permanent piles required for the piers (conservatively assuming CIDH piles are used), will be approximately 653 square feet.

The abutments will be constructed on the existing top of levee. This will require approximately 60 cubic yards of excavation. Within the flood plain, construction of the cast-in-place slab will require falsework construction that is likely to be supported by the permanent piles or temporary timber falsework supported on timber foundation pads. Cast-in-place construction will require that concrete trucks and concrete pumps have access within the flood plain during construction via a temporary haul road. Forklifts will used for construction of the falsework system in the flood plain.

In general, construction of the cast-in-place structure will require forklifts, concrete trucks, concrete pumps and cranes within the floodplain. Equipment access in the floodplain will be via a temporary haul road constructed as part of the project. Falsework removal will also require similar equipment within the flood plain.

Paradise Cut Crossing—Paradise Road Bridge

The new Paradise Road Bridge would be a two-lane structure installed alongside the existing Paradise Road Bridge. The existing bridge crossing consists of two separate bridge structures that cross the two streams in Paradise Cut, constructed of precast I-girders supported on five-column piers. Each is a three-span bridge

approximately 200 feet long by 28 feet wide. The support columns are approximately 2 feet in diameter. The existing bridge structures would not be altered, although the approaches would be modified so that the existing bridge, which currently carries both inbound and outbound traffic, would convey only one travel direction; the other travel direction would be accommodated on the new bridge structure.

The new bridge would consist of two- or three-spans, each approximately 200 feet long by 41- to 42-feet wide. Bridge superstructures would consist either of a cast-in-place box girder approximately 4 feet deep, or precast I-girders similar to the existing bridge.

Abutments for the new bridge would be supported on driven steel piles, driven precast concrete piles, or CIDH piles with a maximum diameter of 24 inches. Intermediate supports would probably be piers consisting of a single 4-foot-diameter CIDH or CISS pile. For structural soundness, it may be necessary to locate the piers within the live streams in Paradise Cut. As with the Golden Valley Parkway Bridge construction, use of a hydraulic casing oscillator for construction of the CIDH piles may also be employed for noise mitigation if deemed necessary by resources agencies.

Runoff from the new bridges would be collected by deck drainage systems and routed through the bridge abutments to the new storm drain system in Paradise Road. Stormwater drainage from the bridges would not be allowed to discharge to Paradise Cut; the bridge decks would be contoured to ensure that all runoff is effectively captured by the deck drainage system for delivery to the storm drain system.

Riprap would likely be necessary to protect the new bridge abutments from erosion. Design-level scour analyses have not yet been conducted, but preliminary assessments suggest that as much as 12,200 square feet of riprap protection may be needed, with riprap extending as much as 50 feet up- and downstream of the bridge crossing, totaling approximately 220 linear feet of protection. Riprap would likely be placed to a depth of 3- to 4-feet for a total of approximately 2,000 cubic yards of material. No riprap would be placed in areas verified as wetlands by the Corps, and no riprap would be placed below the mean high tide mark unless existing riprap below that mark is insufficient to prevent scouring.

Construction Process

As described above for the Golden Valley Parkway Bridge, construction of cast-in-place bridge spans would require a temporary falsework system. A trestle system would also be needed to allow equipment access over the live streams during construction.

The trestle system would be constructed on the side of the new bridge alignment across each of the streams in Paradise Cut. The trestle would be approximately 34 feet wide and 200 feet long. The trestle system is expected to require a driven steel pile foundation, which would be installed in a grid pattern with spacing of approximately 10-feet to 30-feet between each pile. Approximately 70-80 steel piles are anticipated to be needed for the trestle system foundation and individual piles would be no larger than 20-inches in diameter. The piles would be installed with an impact or vibratory hammer. Piles would be removed after construction using a vibratory hammer. Any piles that cannot be removed would be cut off below the mud line and left in place.

The falsework system used to construct cast-in-place bridge elements is expected to consist of steel pipe piles with a maximum diameter of 20-inches, installed on a grid with spacing of approximately 10-feet to 30-feet

between each pile. A total of about 80 piles would be required for the falsework. The falsework structure would be required to clear the 100-year water surface elevation.

Before any in water work (pile driving or pouring of cast-in-place piles or pile extensions) takes place, cofferdams would be installed to isolate the work areas from the live stream. The dimensions of each work area would be approximately 15 feet by 15 feet. Cofferdams would consist of steel sheet piling or oversized steel casings, installed with a vibratory hammer. Installation is expected to take about 10 days. Work areas would then be dewatered and work would take place within the dewatered, cofferdammed area. The permanent piles for the bridge foundations would be constructed with the cofferdams still in place, in order to take advantage of the cofferdams' noise/vibration buffering effect and reduce the effects of pile driving on aquatic life. Bubble curtains and other noise mitigation devices may also be employed. The cofferdams would be removed upon completion of in water activities, requiring about 6 additional workdays.

FLOOD PROTECTION IMPROVEMENT MODIFICATIONS

Flood protection improvements for Phase 2 are proposed to be modified as reflected in the EIS and the Tract 3765 VTM proposal. These modifications are considered minor, since the ultimate flood protection program remains unchanged (meeting 200 year flood protection standards) and most of the major tenets of the flood protection system are unchanged (i.e. Paradise Cut improvements, superwide levees, etc.).

No-Action Flood Protection Option

The No-Action Alternative in the EIS contemplates that Califia LLC could provide flood protection for the Phase 2 area without requiring any federal authorizations. Under this scenario, levees would be built inland from the existing federal levees without contacting the federal levee system (levee within a levee), without affecting wetland features, and without requiring any federal funding, permits, or authorizations. However, if this alternative were to be implemented, it is assumed to be an interim phase of providing flood protection until the project as described in the SEIR and the EIS Proposed Action can be fully implemented. If, through the current NEPA review and federal permitting processes, Califia LLC were not provided the requested federal permits and authorizations, they would construct the No-Action levee within a levee system while continuing to pursue federal authorizations through a renewed application process. It is assumed that eventually the necessary federal authorizations could be obtained and the full project as described in the SEIR and the EIS Proposed Action would be implemented. Therefore, the levee within a levee would be an interim phase towards full project buildout. Several of the flood protection improvement modifications described below reflect or support this interim phase of providing flood protection for the Phase 2 area.

Under the No-Action Alternative, Califia LLC would pay applicable San Joaquin Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) fees, implement applicable SJMSCP impact minimization measures, and implement planned non-native species controls in Paradise Cut (e.g., feral cat control) to address potential effects on state and federally-listed threatened and endangered species.

Paradise Cut Improvement Phasing

The project's Section 408 authorization by the Corps and the required Risk and Uncertainty Analysis for this authorization (which requires computer modeling of various flooding scenarios, including the required 200 year flooding event to meet urban standards) illustrated that if a 200 year flood event were to occur, there would be no

greater risk than the potential risks identified in the SEIR to adjacent areas (i.e. areas south and west of Paradise Cut) if internal levee improvements would proceed in advance of the Paradise Cut improvements. This is because of the significant inundation of these areas in such a flooding event. Construction of levee improvements within Phase 2 does not exacerbate this situation. Additionally, less than 200 year flood flows are accommodated within Paradise Cut with no negative effects to upstream areas (such as those within RD 2107) because of the restoration of the trestle within the UPRR rail line in place of the existing box culverts. (MBK 2010). As a result, the ultimate timing of the overall River Islands flood protection improvements relating to Paradise Cut could be deferred at any time during the development of Phase 2, including at the end of project buildout.

Phasing of flood improvements (internal levees) could occur with this proposal or the construction of high ground plateaus, creating a more cost effective option for the applicant to allow development to occur before completion of the Paradise Cut Improvements. An interior levee, utilizing the approved Conditional Letter of Map Revision (CLOMR) from FEMA dated March 10, 2005 could be built first to allow incremental development, along with the setback levees on Paradise Cut or as may be modified. The cross levee would be constructed approximately 1,000 feet from the UPRR embankment and connect to the Paradise Cut setback levee; Exhibit 2-3. Alternatively, utilizing one or more Letters of Map Revision for Fill (LOMR-F) for the high ground plateaus, Phase 2 development could occur with the ultimate Paradise Cut improvements deferred until buildout. Either of these incremental improvements could be constructed in advance of the Paradise Cut Improvements and would not need any Federal approvals or permitting.

Interim Seepage Berm Option Construction

Phasing of levee improvements could also entail the reconstruction of the Old River levee or the construction of new levees along Paradise Cut with seepage berms to achieve adequate flood protection without constructing the proposed 300-foot wide superlevees described in the SEIR and EIS Proposed Action. Master permits for such reconstruction can be obtained by the Corps, which would allow the placement of engineered fill on top the seepage berm and reconstructed levee to create the superlevee at a later date. Levee improvements under this scenario could be incrementally completed over time as development progresses, with the ultimate superlevee completed under buildout conditions. This interim seepage berm approach is evaluated in the EIS.

Construction of Waterside Bench Areas on the Levee System

In an effort to comply with the Army Corps Guidelines for Vegetation, Phase 2 flood protection improvements may be modified to allow for the construction of waterside benches along the Old River and the planting of new vegetation in conforming areas along the San Joaquin River, Old River, and Paradise Cut. As part of any levee reconstruction effort, the Corps requires under its current “Guidelines for Landscape Planting and Vegetation Management at Levees, Floodwalls, Embankment Dams, and Appurtenant Structures” (ETL 1110-2-571, dated April 10, 2009, commonly known as the Corps’ 2009 Levee Vegetation Guidance) (Corps 2009), the removal of all woody vegetation (i.e. trees, shrubs and certain groundcovers) from both the waterside and landside levee slopes. As such, all affected non-conforming vegetation along the river system with the River Islands project that is subject to levee construction or reconstruction may be removed in accordance with the 2009 Levee Vegetation Guidance. Additionally, along the San Joaquin River where levee improvements are already completed, the project proponent may comply with the 2009 Levee Vegetation Guidance and remove non-conforming vegetation.

If the EIS No-Action Alternative is implemented in the near term, and levees are not subject to construction or reconstruction as part of the proposed project, any actions required for compliance with the Levee Vegetation Guidance would be implemented by the local Reclamation District as needed to maintain levee certification. These Reclamation District actions required to maintain certification of the existing levees are not part of the River Islands project.

To mitigate for the loss of non-conforming vegetation, new vegetation would be planted in areas which conform to the guidance. The Guidance allows for the planting of new riparian vegetation on areas on water side benches that are more than 15 feet from the toe of the levee. In areas where existing benches are wider than 15 feet, new vegetation can be planted. In areas where there is not a 15 foot bench, levees could be reconstructed landward to create a wider waterside bench (Exhibit 2-4). In particular, along the San Joaquin River, there are several benches wider than 15 feet which could be planted in vegetation. Along the Old River where there are very few benches, the levee could be reconstructed landward to create adequate width for planting. Along Paradise Cut, although the levee is already proposed to be set back, no benches are proposed along the new levee because they would attract riparian brush rabbit whose proximity to the development would be inadvisable. Instead, for Paradise Cut, it is envisioned that the remaining segments of the original levee would serve as riparian planting areas as those levees are no longer required for flood protection and would not be part of the flood protection system. All new benches would be created above the mean high tide line.

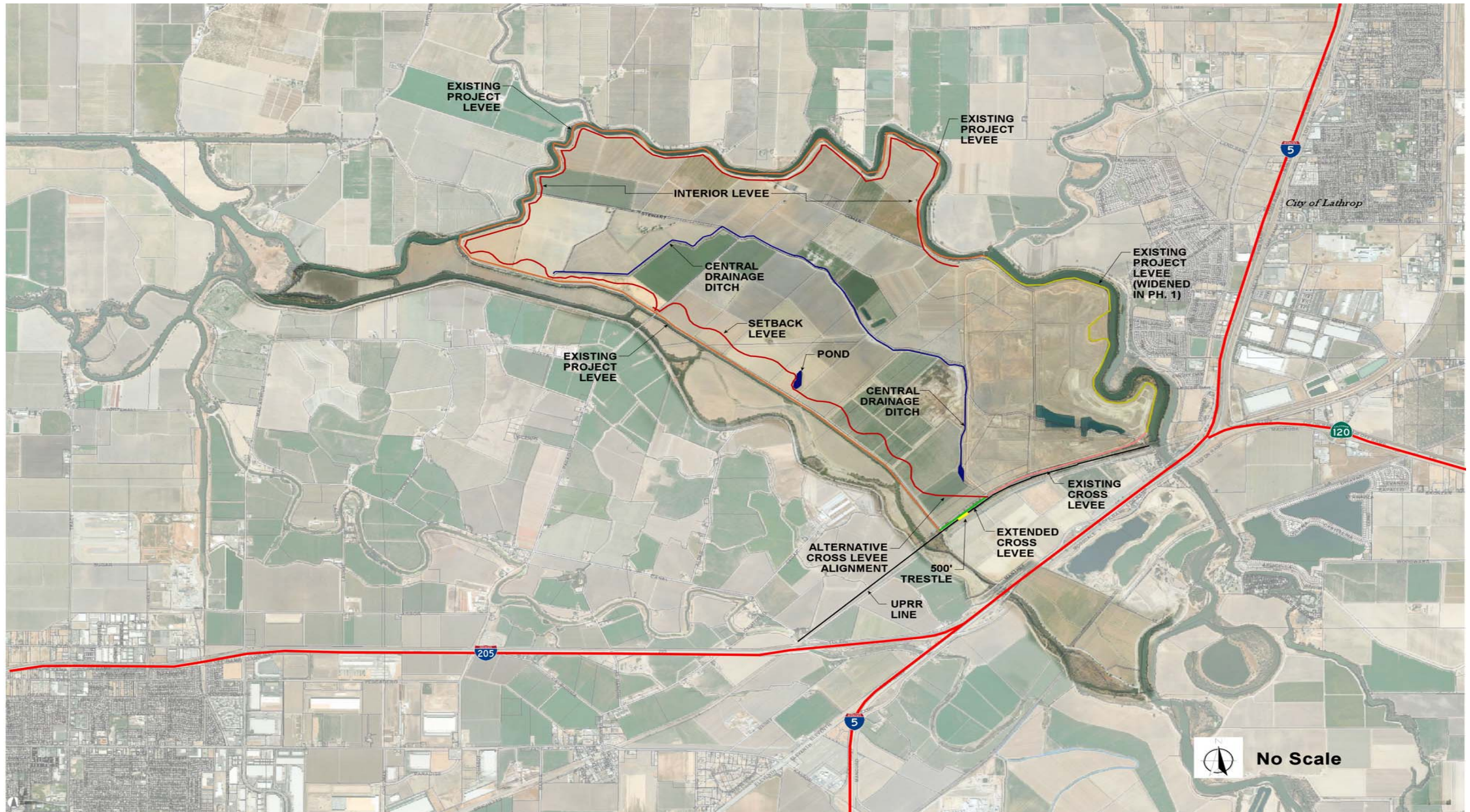
New benches would not be constructed along the entire length of Old River or the Paradise Cut levee remnants, but only along those “stretches” of levee where the planting of riparian vegetation would allow for the most benefit to terrestrial and aquatic species. Since the benches would be located at or above the mean high tide line, the benches will not affect normal river hydrology and could create a net benefit under certain flooding conditions above mean high tide, since the river channel would be slightly larger at points where the waterside benches would be placed.

Paradise Cut Setback Levee and Upper Paradise Cut Improvements

Two minor NEPA modifications would involve the setback levee along Paradise Cut both north of UPRR rail line and near the Paradise Weir. As discussed previously, the current setback levee alignment north of the UPRR rail line would require the filling in of the small pond located near the existing Federal project levee (see Exhibit 2-2). With the project as described in the EIS (and consistent with the Tract 3765 VTM proposal), the setback levee location would be modified to avoid this small pond and allow for the pond to remain as a project amenity and provide protection from flooding (Exhibit 2-5). The change in the footprint in the setback levee relative to that described in the SEIR is very small and would not affect the flood water carrying capacity of Paradise Cut as proposed and would allow for the same acreage of created waterways and habitat areas as first proposed.

In the Upper Paradise Cut improvement area near the Paradise Weir, the lowering of the bench immediately downstream of the Weir, as described in the SEIR, may be reduced or eliminated and replaced with an additional setback levee placed 150-250 feet to north of the existing levee. The setback levee in this location would have the same net hydraulic effect to the flood capacity of Paradise Cut as the lowering of the bench (MBK 2011). This option provides another feasible alternative for the project to help restore flood flows through Paradise Cut.

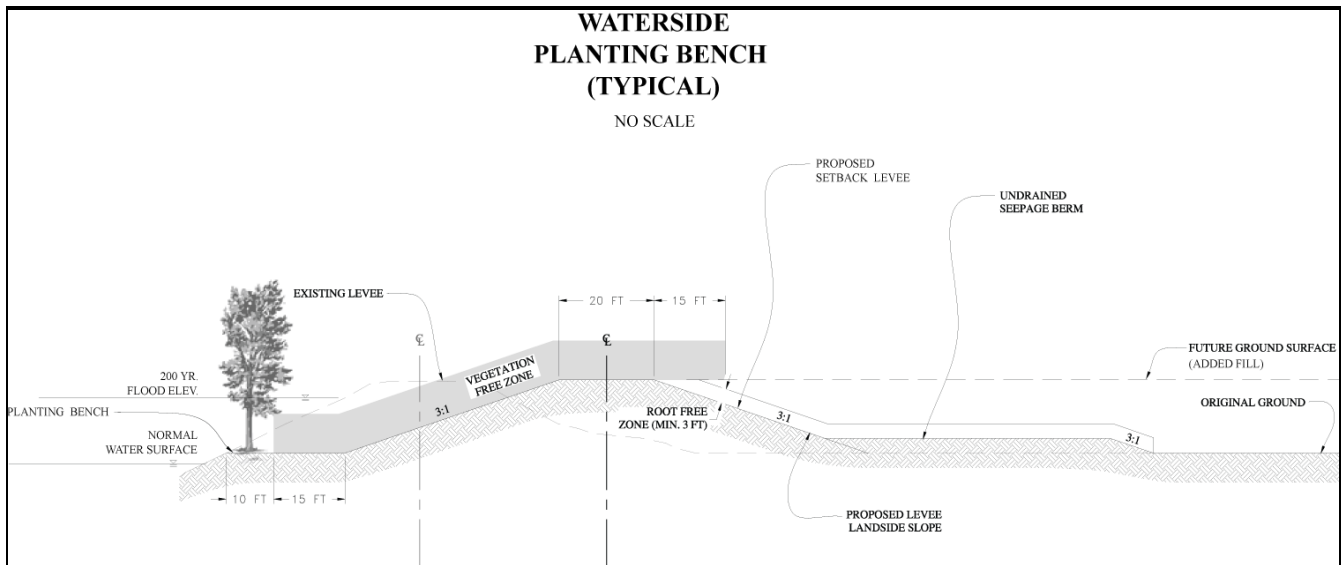
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Source: CBG 2012

Exhibit 2-3

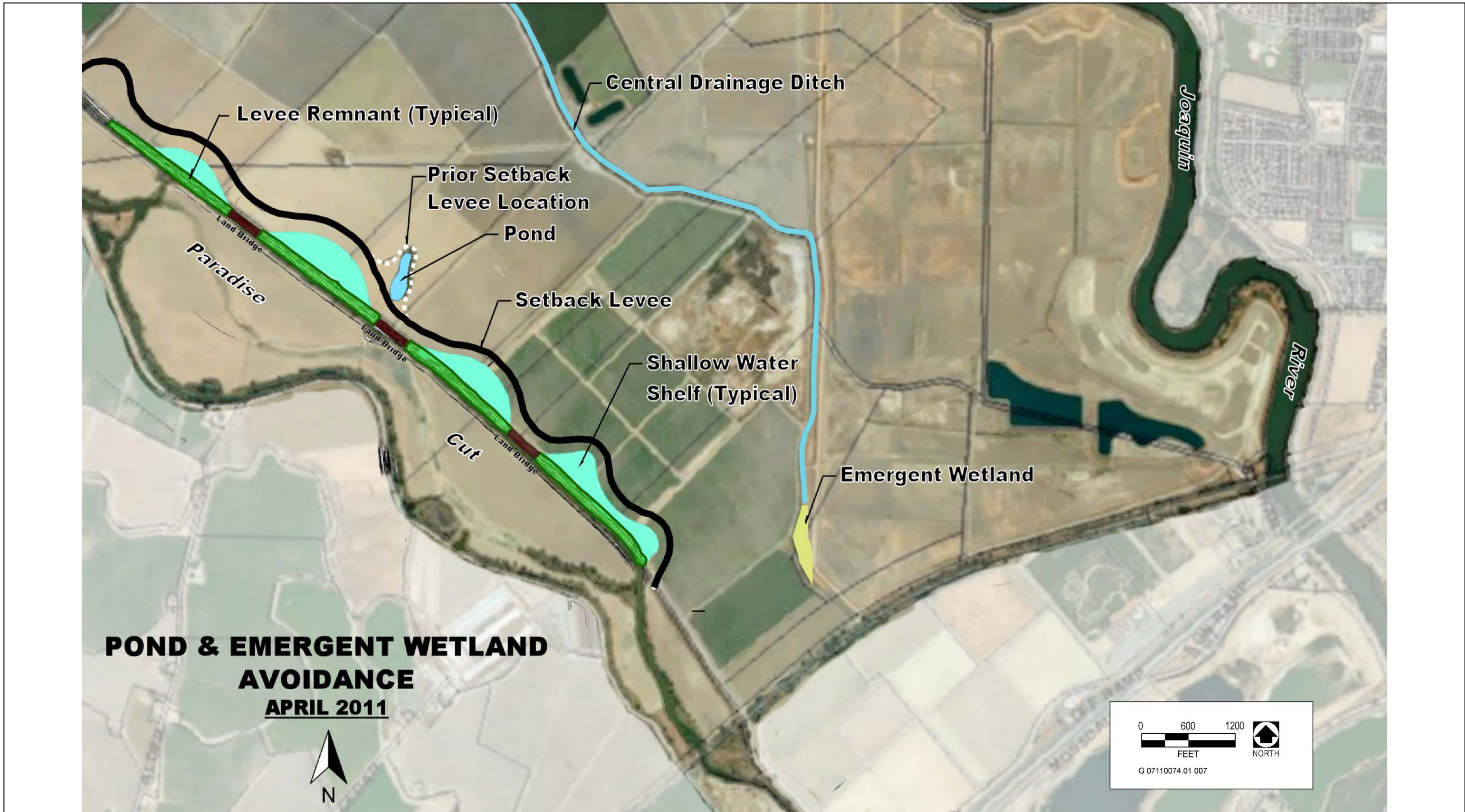
Proposed Cross Levee from NEPA Modifications



Source: Califia LLC, 2011

Exhibit 2-4

Generalized Representation of Waterside Planting Bench



Source: River Islands 2011

Exhibit 2-5

Small Pond Avoidance

3 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND MITIGATION MEASURES

3.1 APPROACH TO ENVIRONMENTAL ANALYSIS

As stated previously in Section 1.2, “CEQA Guidelines Regarding the Addendum to the SEIR,” the City has determined that, in accordance with Section 15164 of the State CEQA Guidelines, minor technical changes or additions to the SEIR and previous addenda are necessary to address the Tract 3765 Vesting Tentative Map (VTM) proposal and NEPA modifications. Consequently, this Third Addendum to the SEIR is prepared for the Tract 3765 VTM proposal and NEPA modifications.

To prepare an addendum to an EIR, as opposed to a subsequent EIR (SEIR) or a supplement to an EIR (Sections 15162 and 15163 of the State CEQA Guidelines), none of the conditions described in Section 15162 calling for preparation of a SEIR must have occurred. In summary, an addendum requires that the revised project or altered circumstances since approval of the previous CEQA document:

- ▶ will not result in any new significant environmental effects,
- ▶ will not substantially increase the severity of previously identified effects,
- ▶ will not result in mitigation measures or alternatives previously found to be infeasible being categorized as feasible, and
- ▶ will not result in availability/implementation of mitigation measures or alternatives that are considerably different from those analyzed in the previous document that would substantially reduce one or more significant effects on the environment.

The analysis of environmental effects provided below follows the general format used in the SEIR. The environmental analysis first evaluates for each environmental topic area (e.g., land use, traffic, air quality) whether there are any changes in the regulatory background, existing conditions, or circumstances in which the project is undertaken that would result in new or substantially more severe environmental impacts. The Addendum then evaluates the differences between the Tract 3765 VTM proposal and the prior River Islands project approvals that warrant minor changes or additions to the SEIR. In this instance prior project approvals encompass those associated with the SEIR and the two previous addenda prepared for the Tract 3491 VTM and Tract 3694 VTM, and the term “SEIR” includes both the SEIR itself and the two previous addenda. The Addendum then evaluates the differences between the NEPA modifications and the prior River Islands project approvals that warrant minor changes or additions to the SEIR.

The environmental effects of the project differences, if any, are identified and an assessment is made as to whether these differences would result in new significant impacts, substantial changes in the severity of previously identified environmental impacts, or significant changes in the effectiveness or applicability of mitigation measures and project alternatives that would trigger the need for subsequent environmental review for the Tract 3765 VTM proposal and NEPA Modifications based on the various criteria for subsequent environmental review included in Sections 15162 and 15164 of the State CEQA Guidelines.

3.2 LAND USE CONSISTENCY AND COMPATIBILITY

Since certification of the River Islands SEIR and related project approvals in 2003, and adoption of the Tract 3491 VTM in 2005, and Tract 3964 VTM in 2007 no changes to the regulatory background or existing conditions have occurred involving land use issues that would trigger the need for subsequent environmental review for the Tract 3765 VTM proposal.

Although California Senate Bill X71 (SBX71) (Ch. 5. Stats. 09-10, 7th Ex, Sess.) was enacted and took effect on February 3, 2010, after certification of the River Islands SEIR, and this bill influences land use in the Sacramento-San Joaquin Delta (Delta), it does not result in a change in regulatory background or existing conditions that would trigger the need for subsequent environmental review, for the reasons described below. Known as the Delta Protection Act of 2009, SBX71 called for the establishment of the Delta Stewardship Council and the adoption and implementation of the Delta Plan to guide a comprehensive resources management plan for the Delta. The Delta Stewardship Council has prepared multiple drafts, but has not yet adopted the Delta Plan. Accordingly, the Delta Plan is not an adopted plan for purposes of this environmental analysis.

Nonetheless, if the Delta Plan is adopted, the River Islands Project would be considered exempt from the Plan and would not be a covered action under Water Code section 85057.5. Specifically, the River Islands Project is a project located within the Secondary Zone of the Delta and since its approval by the City of Lathrop in 2003 (and the prior approval of the Gold Rush City Project in 1996), has been included in the SJCOG Clean Air Plan and considered within the San Joaquin Valley as an area slated for development. This development is considered in alternative planning strategies to achieve greenhouse gas emission reductions.

Further, the City of Lathrop has approved and is undertaking this project in the Secondary Zone. The City of Lathrop filed a Notice of Determination in February 2003 for the approval of the River Islands Specific Plan and associated development approvals, including the River Islands Development Agreement, long before the effective date of the Delta Plan if and when it is adopted. In this regard, the Delta Protection Act provides that when the Delta Plan is adopted, nothing in the application of the plan shall conflict with or extinguish any vested rights. Moreover, the River Islands Project includes habitat restoration such as the restoration and preservation proposed in Paradise Cut, and it would be consistent with the conservation measures included in the Bay Delta Conservation Plan.

Consequently, because the Delta Plan has not been adopted and the River Islands Project is exempt from the Delta Plan under the Delta Protection Act, the River Islands Project does not conflict with the plan.

Project land uses under the Tract 3765 VTM proposal are consistent with those included in the WLSP and existing approvals. Although the development envelope under the Tract 3765 VTM is modified in some areas relative to existing approvals due to the removal of back bays (other than the Lathrop Landing back bay) and avoidance of special aquatic features, the overall development scenario remains the same. No additional housing units or other development beyond the total considered in the SEIR and other approvals would be constructed on former back bay areas. Already planned development would either be “spread” into the former back bay land, or the land would be used for open space, recreation, or similar uses. The loss of developable area to preserve special aquatic features is more than made up for by the gains associated with removal of the back bays and does not limit the ability to meet development targets.

In addition, although modifications to project phasing included in the Tract 3765 VTM alter when some project elements might be developed relative to other project elements, the overall development scenario remains the same. The same type and amount of development would occur in the same locations (with some minor exceptions in the former back bays). Therefore, conclusions in the SEIR and subsequent addenda related to consistency with applicable land use plans, policies, and regulations; consistency with applicable habitat conservation plans or natural community conservation plans; and lack of division of an established community, would also apply to the Tract 3765 VTM.

The NEPA modifications result in minor project changes and clarifications that do not affect land use consistency conclusions. Elimination of back bays and avoidance of special aquatic features are discussed above. Modifications to the number and configuration of boat docks (i.e., shift to only group docks), the resulting overall reduction in the number of berths, and the addition of fishing piers does not alter land use consistency conclusions already identified in the SEIR and subsequent addenda as proposed modifications are only minor alterations to activities already included in past project analyses and approvals. The same is true for the added detail now available regarding bridge design and construction methods. Although in some ways the proposed flood protection improvement modifications alter the timing and order of these improvements relative to project development as identified in SEIR and addenda, desired levels of flood protection are still maintained for new and existing land uses and the type and amount of development included in the River Islands project is not altered. Although changes in the phasing of flood control improvements and project development would occur, payment of fees under the San Joaquin Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) would be made at appropriate times and applicable impact avoidance and minimization measures would be implemented. Therefore, conclusions in the SEIR and subsequent addenda related to consistency with applicable land use plans, policies, and regulations; consistency with applicable habitat conservation plans or natural community conservation plans; and lack of division of an established community, would also apply to the NEPA modifications.

Because land uses included in the Tract 3765 VTM (which also reflect the NEPA modifications) are considered consistent with those evaluated in the SEIR, they can also be considered consistent with the Lathrop General Plan and the WLSP, just as the original VTM land uses were found to be consistent. The Tract 3765 VTM proposal and NEPA modifications would not require any additional amendments to these plans beyond those already approved for the River Islands project.

In summary, any differences between the Tract 3765 VTM proposal and NEPA modifications described in this Addendum and the previously approved development proposals and SEIR are considered minor and would not result in new significant land use impacts, significant changes in the severity of previously identified land use impacts, or significant changes in the effectiveness or applicability of mitigation measures and project alternatives related to land use.

3.3 POPULATION, EMPLOYMENT, AND HOUSING

Since certification of the River Islands SEIR and related project approvals in 2003, and adoption of the Tract 3491 VTM in 2005 and Tract 3964 VTM in 2007, no changes to the regulatory background or existing conditions relative to population, employment, and housing have occurred that trigger the need for subsequent environmental review of the Tract 3765 VTM proposal.

The SEIR and previous addenda identify impacts related to population growth and housing demand during project construction as being less than significant. The extent, type, and pace of development are basically the same under both the Tract 3765 VTM proposal and the development scenario described in the SEIR and previous addenda. Therefore, the number of construction jobs generated by project development during peak construction periods would not be appreciably different between the various scenarios. Impacts related to population growth and housing demand during project construction would remain less than significant under the Tract 3765 proposal.

The Tract 3765 VTM proposal does not change the total number of housing units as identified in existing project approvals (4,284 units in Phase 1 and 6,716 units in Phase 2). However, under the modifications under Tract 3694 VTM, Phase 2 would have to accommodate a higher number of multi-family units than originally assumed under the SEIR, since Phase 1 has a higher number of single-family units relative to multifamily units. Project approvals to Tract 3694 included 3,226 single-family units and 1,058 multifamily units. The Tract 3694 VTM includes 3,741 single-family units, and 543 multifamily units. This results in 515 more single-family units and 515 fewer multifamily units at the completion of Phase 1 of the River Islands project than in previous project approvals. The split between single-family and multifamily units would be altered correspondingly during Phase 2 of project development to result in the 1,629 multifamily units and 9,371 single-family units (11,000 total units) identified in the SEIR at project buildout. Therefore, the difference in unit mix associated with the Tract 3694 VTM would only apply to Phase 1 of the project and the additional multifamily units addressed in the subsequent small lot vesting tentative map would be analyzed in any subsequent project level CEQA review at that time.

Job-generating land uses were also altered under the Tract 3694 VTM, since the SEIR and previous addendum concentrated these uses in the Town Center and Employment Center. Under Tract 3694, only 60% of the Employment Center would be constructed and therefore, the remaining 40% developed in Phase 2. The total buildout of the Town Center and Employment Center are not affected however and the assumptions included in the 2007 office absorption analysis prepared for the project by ESG are also not affected. Therefore, the Tract 3765 VTM proposal would have approximately the same employee-generation potential as the SEIR development scenario. Therefore, impacts related to generation of employment, which are identified as less than significant in the SEIR and previous addenda, would remain less than significant under the Tract 3765 VTM proposal.

The NEPA modifications do not alter the type and amount of development in the River Islands Project and therefore do not affect factors such as housing availability, housing demand, and generation of employment. Although the timing of construction of some flood protection improvements would be altered, the same general system of levee and other flood protection improvements would ultimately be implemented and construction jobs generated during peak construction periods would not be appreciably different from that identified in the SEIR and addenda.

Since the Tract 3765 VTM and NEPA modifications do not alter the type or amount of development at project buildout, any changes in the proposal are considered minor and would not result in new significant impacts related to population, employment, and housing; significant changes in the severity of previously identified impacts related to population, employment, and housing; or significant changes in the effectiveness or applicability of mitigation measures and project alternatives related to population, employment, and housing.

3.4 TRAFFIC

Since certification of the River Islands SEIR and related project approvals in 2003, and adoption of the Tract 3491 VTM in 2005 and Tract 3694 VTM in 2007, no changes to the regulatory background relative to traffic have occurred that trigger the need for subsequent environmental review of the Tract 3765 VTM proposal.

Some changes to existing traffic conditions have occurred since completion of the SEIR in 2003 and adoption of the two previous VTMs, in that some planned transportation infrastructure improvements have been implemented and some traffic generating land uses have been developed since that time. However, these changes are consistent with the traffic model assumptions used in the SEIR and would not alter the results of the model or the impact analysis for the Tract 3765 VTM proposal.

Since the Tract 3765 VTM proposal does not directly create housing or employment generating uses (these would occur with a subsequent small lot VTM), there are no new traffic or transportation related effects created by the proposal. However, even if one considers the development proposed within the Tract 3765 VTM, because the amount and type of development is consistent with that evaluated in the SEIR and subsequent addenda, traffic generation (both construction traffic and operational traffic) would not change. In addition, the traffic infrastructure associated with the project, such as the proposed River Islands Parkway, Golden Valley Parkway, and Paradise Road configurations and uses are unchanged from the SEIR and previous approvals.

Although not expected, if the implementation of the Tract 3765 VTM proposal were to alter the rate of trip generation due to alterations in phasing (i.e., more or less trips during some point in project implementation compared to earlier estimates), this would not alter the significance of traffic impacts because of the mitigation measures included in the SEIR. As described on pages 4.4-71 through 4.4-75 of the Draft SEIR, there are several regional and local traffic fee and monitoring programs that the River Islands project would be subject to. Fees are collected based on development, and use of fees by local agencies for infrastructure improvements is based on the amount of fees collected from various sources, and in many cases, monitoring of traffic conditions to determine the need for a planned improvement. Any slight alterations in the timing of various types of development associated with the Tract 3765 VTM proposal would not alter the effectiveness or implementation of the fee collection and mitigation programs as they respond directly to the volume and type of development that occurs and the trip generation that triggers the need for transportation infrastructure improvements.

Overall, capacity and function of the traffic network is unchanged under the Tract 3765 VTM. Because there is no change in traffic generation or capacity or function of the roadway network, there would be no change in traffic impacts from those described in the SEIR and subsequent addenda.

This same conclusion also applies to the NEPA modifications. Elimination of back bays, avoidance of special aquatic features, modifications of boat docks, and flood protection improvement modifications do not change traffic generation or the capacity and function of the roadway network. Although further detail is available regarding the design and construction methods for project bridges (which are critical elements of the transportation network), this detail does not change the lane count, capacity, or function of these bridges as described in the SEIR and subsequent addenda. Therefore, the added bridge detail does not alter the analysis or conclusions regarding traffic impacts.

As described below in Section 3.5, “Air Quality”, the flood protection improvement modifications would generally be neutral regarding any increases or decreases in earth moving efforts compared to the SEIR and subsequent addenda. Therefore, the NEPA flood protection improvement modifications would also not result in a significant change in construction traffic. In addition, the anticipated phasing/staging of flood protection improvements would spread construction activity, and therefore construction traffic, over many more years than assumed in the SEIR and subsequent addenda. Therefore, annual construction vehicle trips would likely be less than described in these documents and construction traffic impacts could be less.

Because the Tract 3765 VTM and NEPA modifications do not alter traffic generation or the capacity and function of the project roadway network, these actions would not result in any new significant traffic impacts, significant changes in the severity of previously identified traffic impacts, or significant changes in the effectiveness or applicability of mitigation measures and project alternatives related to traffic.

3.5 AIR QUALITY

Since certification of the River Islands SEIR and related project approvals in 2003, and adoption of the previous VTMs, no major changes to the regulatory background or existing conditions relative to air quality have occurred that trigger the need for subsequent environmental review of the Tract 3765 VTM proposal.

As mentioned above in Section 3.3, “Population, Employment, and Housing,” and described elsewhere in this document, the extent, type, and pace of development are not appreciably different under the Tract 3765 VTM compared to development scenarios described in the SEIR and previous addenda. Therefore, construction related and operational air emissions and associated air quality impacts (e.g., emissions of regional criteria pollutants during construction, potential for increases in odorous emissions, increases in stationary-source toxic air contaminants) also would not be appreciably different. It should also be noted that since the Tract 3765 VTM proposal does not directly create housing, employment, or other pollutant emitting uses (these would occur with a subsequent small lot VTM), there technically are no new air quality related effects created by the proposal.

Similar conclusions regarding air quality impacts also apply to the NEPA modifications. Elimination of back bays, avoidance of special aquatic features, further detail on bridge construction, and flood protection improvement modifications do not change operational air emissions (both stationary and mobile source emissions) associated with the project. The reduction in the total number of boat berths associated with the modification of boat docks would result in an overall reduction in boat traffic generated by the project and an associated reduction in mobile source emissions from this activity.

Elimination of back bays would likely reduce overall earth moving needed for the project and therefore reduce construction emissions. Flood protection improvement modifications could require increased earth moving in some areas relative to that assumed in the SEIR and subsequent addenda (e.g., construction of waterside bench areas for vegetation), and decreased earth moving in other areas (e.g., the No-Action Flood Protection option). Some modifications would generally be neutral regarding earth moving effort; for example, interim seepage berms would likely ultimately be incorporated into future superlevees at the same location, resulting more in a phased placement of levee soils rather than a placement, removal, and replacement. In total, the proposed flood protection improvement modifications included in the NEPA modifications result primarily in a change in phasing/timing of levee improvements rather than a change in overall construction effort. Rather than the total

flood protection improvement scenario described in the SEIR being completed before any project development, it would be completed in stages concurrently (and some portions potentially after) project development. This staging of flood protection improvements would spread construction emissions over many more years than assumed in the SEIR and subsequent addenda. Therefore, annual construction emissions would likely be less than described in these documents, while overall emissions would not be appreciably different.

Although further detail is available regarding the design and construction methods for project bridges (which are critical elements of the transportation network), this detail does not change the lane count, capacity, or function of these bridges or overall construction effort assumed in the SEIR and subsequent addenda. Therefore, the added bridge detail does not alter the analysis or conclusions regarding stationary, mobile source, or construction related air emissions.

Because the Tract 3765 VTM and NEPA modifications do not appreciably alter mobile source, stationary source, or construction related emissions (and in some cases may reduce annual emissions), including odors and toxic air contaminants, these actions would not result in any new significant air quality impacts, significant changes in the severity of previously identified air quality impacts, or significant changes in the effectiveness or applicability of mitigation measures and project alternatives related to air quality.

3.6 NOISE

Since certification of the River Islands SEIR and related project approvals in 2003, and adoption of the previous VTMs, no major changes to the regulatory background or existing conditions relative to noise have occurred that trigger the need for subsequent environmental review of the Tract 3765 VTM proposal and NEPA modifications. There are however, new standards issued by the California State Department of Fish and Game (CDFG) for noise impacts when constructing structures in rivers and streams under certain specific conditions and locations. These standards are intended to protect special-status fish species that may occur in waterways affected by construction and would be applied to bridges constructed as part of the River Islands project. Details regarding bridge construction provided previously in Section 2.5.2, “NEPA Modifications” are either consistent with these standards, or bridge construction will be made consistent with these standards as needed with minor additions or modifications (e.g., greater use of bubble curtains than currently described). Therefore, these new CDFG actions would not result in any new significant noise impacts, significant changes in the severity of previously identified noise impacts, or significant changes in the effectiveness or applicability of mitigation measures and project alternatives related to noise impacts.

As described previously, the extent, type, and pace of development (e.g., homes, job generating land uses) supported by the Tract 3765 VTM proposal and NEPA modifications are consistent with the development scenarios described in the SEIR and the previous addenda. Therefore, noise associated with the construction and operation of these categories of development would not appreciably differ from that described in the SEIR and previous addenda. Under the Tract 3765 VTM and NEPA modifications construction of flood protection improvements would be spread over a greater number of years, but the total construction effort would not be appreciably different, resulting in reduced annual construction activity for flood protection improvements. In addition, construction and operations related traffic generation and overall traffic impacts under the Tract 3765 VTM proposal and NEPA modifications would not be appreciably different from those identified in the SEIR and previous addenda, and the Tract 3765 VTM proposal would not result in new or substantially more severe traffic

impacts. Therefore, noise generation from construction activities, stationary sources, and mobile sources under the Tract 3765 VTM proposal also would not be appreciably different from noise generation identified in the SEIR and previous addenda. Project development also would not place new noise sensitive receptors in locations not already anticipated in the SEIR and subsequent addenda.

Impacts related to construction noise, which are considered significant in the SEIR and previous addenda, would also be significant under the Tract 3765 VTM proposal and NEPA modifications. The same mitigation measures identified in the SEIR would reduce these impacts to less-than-significant levels. Impacts related to increases in traffic noise levels identified as less than significant in the SEIR and previous addenda would remain less than significant under the Tract 3765 VTM proposal and NEPA modifications.

The SEIR and previous addenda identify a significant and unavoidable noise impact resulting from some project areas potentially being exposed to exterior noise levels exceeding City standards. This condition is created by existing noise sources, primarily Interstate 5 (I-5) and the Union Pacific Railroad (UPRR) line along the projects southeastern boundary. Exterior areas around homes on high-ground corridors near I-5 and the Head of Old River are considered most likely to be exposed to this impact, but these areas are located in Phase 1. Tract 3765 and the NEPA modifications do not propose any development of housing or non-residential uses in the Phase 1 area (this development was the subject of the Tract 3491 VTM), so no new sensitive receptors would be affected by these existing noise sources. Therefore, the significant and unavoidable noise impact is associated with the Tract 3765 VTM and NEPA modifications.

Implementation of the Tract 3765 VTM proposal and NEPA modifications would not result in any new significant noise impacts, significant changes in the severity of previously identified noise impacts, or significant changes in the effectiveness or applicability of mitigation measures and project alternatives related to noise issues.

3.7 GEOLOGY, SOILS, AND MINERAL RESOURCES

Since certification of the River Islands SEIR and related project approvals in 2003, and adoption of the previous VTMs, no changes to the regulatory background or existing conditions relative to geology, soils, and mineral resources have occurred that trigger the need for subsequent environmental review of the Tract 3765 VTM proposal and NEPA modifications.

The Tract 3765 VTM proposal and NEPA modifications include the same land uses and development types as those analyzed in the SEIR and previous addenda. Therefore, risks associated with seismic hazards (including ground shaking, liquefaction, ground lurching, soil settlement, lateral spreading, and landslide) would not be appreciably different between those identified in the SEIR and past addenda and for the Tract 3765 VTM proposal and NEPA modifications. The Tract 3765 VTM and NEPA modifications would not result in new or substantially more severe geology, soils, and mineral resources impacts relative to the impact mechanisms listed above. Potential for damage to project facilities resulting from shrink-swell soils and corrosive soils also would not be appreciably different between the SEIR and past addendum development scenarios and the Tract 3765 VTM proposal and NEPA modifications. The Tract 3765 VTM proposal and NEPA modifications would not result in new or substantially more severe geology, soils, and mineral resources impacts relative to these impact mechanisms. Impacts identified in the SEIR and previous addenda related to seismic hazards, shrink swell-soils,

and corrosive soils; the level of significance of those impacts (before and after mitigation); and applicable mitigation measures, would also apply to the Tract 3765 VTM proposal and NEPA modifications.

There are no potentially significant sand deposits designated as MRZ-2 by the California Department of Conservation, Division of Mines and Geology (CDMG) in the Phase 2 area. Therefore, there are no impacts related to this issue associated with the Tract 3765 VTM proposal and NEPA modifications.

Impacts related to construction-related soil erosion would occur under the any River Islands development scenario. In the SEIR and previous addenda, this impact is considered less than significant. The potential for construction-related soil erosion would not be appreciably different under the Tract 3765 VTM proposal and NEPA modifications which would have a similar construction effort as past development scenarios, supporting only a slightly modified development approach (e.g., elimination of back bays, avoidance of special aquatic features). Therefore, this impact would remain less than significant under the Tract 3765 VTM proposal and NEPA modifications.

Implementation of the Tract 3765 VTM proposal and NEPA modifications would not result in any new significant impacts related to geology, soils, and mineral resources; significant changes in the severity of previously identified impacts related to geology, soils, and mineral resources; or significant changes in the effectiveness or applicability of mitigation measures and project alternatives related to geology, soils, and mineral resources.

3.8 HYDROLOGY AND WATER QUALITY

Since certification of the River Islands SEIR and related project approvals in 2003, and adoption of the previous VTMs, no changes to the regulatory background relative to hydrology and water quality have occurred that trigger the need for subsequent environmental review of the Tract 3765 VTM proposal and NEPA modifications.

Although not a regulatory change that triggers the need for subsequent environmental review, there have been changes since the SEIR and previous addenda were certified regarding the regulatory environment for flood control that warrant acknowledgement. In 2007 and 2008 (after adoption of the second River Islands SEIR addendum) various bills were passed by the California legislature that affected flood protections standards and flood protection planning in the Central Valley, including Assembly Bill 162 passed in 2007 and Senate Bill 5, the Central Valley Flood Protection Act, passed in 2008. A significant element of this legislation is the requirement that urbanized areas be provided a 200-year level of flood protection (i.e., flood protection be able to withstand water surface elevations associated with the 1-in-200 Annual Exceedance Probability [AEP] event). Because the River Islands flood control system will provide 200-year flood protection, plus include an additional 3-feet of levee freeboard above the 1-in-200 AEP water surface elevation, the project is consistent with the legislative requirements. In addition, the project is consistent with, and supports current flood protection planning efforts resulting from the legislation in question, such as the project's planned improvements to Paradise Cut that increase the flood protection function of this feature.

As stated previously, development planned within the Tract 3765 VTM area is consistent with that evaluated in the SEIR and past addenda; therefore, the development itself would not alter impacts, mitigation, or conclusions in these past documents related to hydrology and water quality. Similarly, additional details now available

regarding the design and construction methods for project bridges are consistent with assumptions used in the SEIR and previous addenda and do not alter impacts, mitigation, or conclusions in these past documents related to hydrology and water quality.

Elements of the Tract 3765 VTM proposal and NEPA modifications that could alter project effects on hydrology and water quality include modified timing/phasing of flood protection improvements, elimination of back bays, avoidance of special aquatic features, modification of boat docks, the No-Action Flood Protection Improvement Option, modified phasing of Paradise Cut improvements (including the cross levee modification reflected in Exhibit 2-3), interim seepage berm construction options, construction of water side bench areas on the levee system, and the modifications to Upper Paradise Cut Improvements.

Construction of the waterside bench areas could alter hydrologic effects relative to those described in the SEIR and previous addenda through modifying the shape of the waterside levee surface (and therefore altering the river cross section and conveyance capacity) and increasing “roughness” by placing woody vegetation in the floodway that could impede water flows. However, waterside benches would be designed in such a way so that the flood conveyance capacity related to the river cross section would not be reduced (e.g., setting back original levee when constructing the bench). Planting of woody vegetation at the benches is intended to replace reduced opportunities for vegetation planting resulting from the Corps’ 2009 Levee Vegetation Guidance. Plantings in the waterside bench areas does not increase the overall shoreline planting along the San Joaquin River, Old River, and Paradise Cut anticipated in the SEIR and previous addenda. Therefore, the overall “roughness” along these waterways attributable to vegetation plantings would not increase from that evaluated in the SEIR and previous addenda.

Elements of the NEPA modifications that result in interim flood protection improvements within the existing levees before the planned “super levee” system is complete in most instances do not affect hydrology and water quality relative to what was analyzed and disclosed in the SEIR and previous addenda. For example, interim seepage berm construction and “levee within a levee” systems associated with the No-Action Flood Protection Improvement Option would meet the 200-year flood protection standard, occur within the already anticipated project development envelope, and would ultimately be incorporated into the planned final “super levee” system.

Where the Tract 3765 VTM proposal and NEPA modifications could alter hydrologic conditions, such as modifying the phasing of Paradise Cut improvements, restoring the trestle in the UPRR rail line paralleling the cross levee, eliminating back bays (minor reduction in increased flood storage capacity provided by the project), and modifying the alignment of the Paradise Cut setback levee to avoid the existing pond, these modifications have been incorporated into updated hydraulic/hydrologic modeling for the project (MBK 2010 and 2011). Table 3-1 compares the modeling results from the SEIR with the updated modeling results performed by MBK Engineers incorporating the Tract 3765 VTM proposal and NEPA modifications.

In most cases, particularly for the more frequent 1 in 50 AEP and 1 in 100 AEP events, the Tract 3765 VTM proposal and NEPA modifications would result in lower flood stage elevations than those identified in the SEIR. Where elevations increase during the 1 in 50 and 1 in 100 AEP events, the increases are in the range of 0.01 to 0.08 feet. For the 1 in 200 AEP event, increases in flood stage elevation occur in more locations and range from 0.01 to 1.69 feet. However, it is important to note that the flooding events assumed in the SEIR analysis anticipated levee failures three feet from the top of levee in some locations upstream of the project site. With the updated analysis the assumptions are more conservative, with the modeling showing failures at top levee or the

more extreme assumption of no failures while overtopping; the latter is the assumption utilized by the Corps when evaluating projects in the Delta at this time. Were the SEIR modeling to use the same levee failure assumptions as the updated modeling, increases in flood stage elevation shown in Table 3-1 would occur in fewer locations, would be substantially less, and in many cases increases in flood stage elevation would convert to decreases. Where decreases in flood stage elevation are shown in Table 3-1, these decreases would be greater. Given these conditions, implementation of the Tract 3765 VTLM proposal and NEPA modifications would not change the less than significant impact conclusions in the SEIR related to alterations in flood stage elevations.

**Table 3-1
Comparison of Modeling Results (SEIR versus Tract 3765 VTM and NEPA Modifications)**

| Location | 1 in 50 AEP | | | 1 in 100 AEP | | | 1 in 200 AEP | | |
|--|------------------|---------------------------|-------|------------------|---------------------------|-------|------------------|---------------------------|-------|
| | (50 Year Event) | | | (100 Year Event) | | | (200 Year Event) | | |
| | DEIR (7/2002) | Risk Analysis (4/2010) | | DEIR (7/2002) | Risk Analysis (4/2010) | | DEIR (7/2002) | Risk Analysis (4/2010) | |
| | 3FT | TOL | NF | 3FT | TOL | NF | 3FT | TOL | NF |
| San Joaquin River | | | | | | | | | |
| at Banta Carbona Canal | -0.09 | -0.09 | -0.09 | -0.02 | -0.02 | -0.05 | 0.11 | -0.04 | 0 |
| at Paradise Cut | -0.35 | -0.16 | -0.15 | -0.06 | -0.05 | -0.08 | 0.26 | -0.03 | -0.01 |
| at Mossdale Gage | -0.31 | -0.13 | -0.13 | -0.07 | -0.02 | -0.05 | 0.19 | -0.01 | 0.03 |
| at Old River | -0.26 | -0.1 | -0.1 | -0.09 | 0 | -0.02 | 0.04 | 0.01 | 0.09 |
| at Brandt Bridge | -0.18 | -0.06 | -0.06 | 0 | 0 | -0.02 | 0.05 | 0.01 | 0.07 |
| Paradise Cut | | | | | | | | | |
| d/s of Weir | -0.54 | -0.4 | -0.37 | -0.31 | -0.26 | -0.27 | 0.41 | 0.21 | 0.09 |
| at UPRR | -0.15 | -0.09 | -0.11 | 0.01 | -0.11 | -0.15 | 0.77 | 0.25 | 0.22 |
| at I-5 | -0.04 | -0.31 | -0.26 | 0.66 | -0.21 | -0.22 | 2.16 | 1.53 | 1.69 |
| at SPRR | -0.23 | -0.55 | -0.49 | 0.37 | -0.47 | -0.45 | 1.43 | 1.35 | 1.45 |
| at Paradise Road | 0.1 | -0.18 | -0.19 | 0.19 | -0.13 | -0.13 | 0.67 | 0.63 | 0.50 |
| Old River | | | | | | | | | |
| Midway between San Joaquin River and Middle River | -0.14 | -0.07 | -0.07 | 0.03 | 0.02 | -0.01 | 0.08 | 0.01 | 0.20 |
| at Middle River | -0.01 | -0.03 | -0.03 | 0.11 | 0.04 | 0.02 | 0.43 | 0.19 | 0.34 |
| at Tracy Blvd. | 0.1 | 0.02 | 0.02 | 0.14 | 0.08 | 0.06 | 0.66 | 0.45 | 0.47 |
| 5 miles d/s of Tracy Blvd | 0.03 | 0.01 | 0.01 | 0.08 | 0.03 | 0.03 | 0.35 | 0.30 | 0.32 |
| Middle River | | | | | | | | | |
| at Mowry Bridge | 0 | -0.03 | -0.03 | 0.07 | 0.03 | 0.01 | 0.3 | 0.19 | 0.20 |
| Grant Line Canal | | | | | | | | | |
| at Tracy Blvd. | 0.09 | 0.02 | 0.02 | 0.1 | 0.06 | 0.05 | 0.51 | 0.38 | 0.40 |
| 4 miles d/s of Tracy Blvd. | 0.02 | 0 | 0 | 0.05 | 0.02 | 0.02 | 0.2 | 0.18 | 0.20 |
| Notes: "3FT" Levees failed when water reached point 3 feet below top of levee "TOL" Levees failed when water reached top of levee "NF" Levees overtop without failing (No Failures) | | | | | | | | | |

Impacts related to construction sediment in the project-development area contributing to water quality contamination would not be altered appreciably by the Tract 3765 VTM proposal or NEPA modifications as the construction footprint (with minor modifications such as the elimination of back bays) and the type of development are not altered relative to that evaluated in the SEIR and previous addenda. This impact would still be considered potentially significant under the Tract 3765 VTM proposal and NEPA modifications, and the same mitigation measures would be implemented to reduce the impact to less-than-significant levels.

Under the SEIR development scenario, project elements such as back bays, river boat docks, installation of new water intakes and outfalls, and breaching of existing levees after setback levees would all contribute to water quality impacts via mechanisms such as earth-moving activities in water bodies, operation of in-water project features, maintenance dredging of back bays, and increased boat traffic. Under the Tract 3765 VTM proposal and NEPA modifications, similar impacts would occur, but to a lesser degree and via fewer impact mechanisms. Fewer boat berths resulting from the NEPA modifications would reduce project generated boat traffic and related water quality effects. The elimination of back bays resulting from the NEPA modifications also eliminates the breaching of existing levees to form the back bays and back bay maintenance dredging activities. Overall, the Tract 3765 VTM proposal and NEPA modifications would have the same or lesser impacts on water quality via the facilities and impact mechanisms mentioned above compared to the development scenarios evaluated in the SEIR and previous addenda.

The development scenario evaluated in the SEIR and previous addenda use the Central Lake and the Grand Canal to detain stormwater before discharging it to Paradise Cut. Stormwater best management practices (BMPs) would be implemented such as use of water treatment wetlands (bio-retention basins) adjacent to the stormwater detention water bodies to treat stormwater before it reaches the detention areas. In the case of the water treatment wetlands, water from the stormwater detention water bodies would be regularly cycled through the treatment wetlands to maintain water quality in the detention water bodies. This same scenario would continue unchanged under the Tract 3765 VTM proposal and NEPA modifications; however, because of the elimination of back bays from the project, rain and stormwater entering the back bay areas that would have immediately drained/fell into the San Joaquin River or Old River under the SEIR development scenario would instead flow to the project's internal stormwater management system.

Under the development scenario analyzed in the SEIR, Phase 2 of project development would include approximately 100 acres of water features to be used for stormwater treatment and management (i.e., Central Lake, Grand Canal, water treatment wetlands). This area, in conjunction with other stormwater BMPs, was considered sufficient to:

- ▶ detain project-generated stormwater volumes consistent with regulatory standards,
- ▶ maintain interior lake water quality to such a level that water quality impacts associated with discharges from the lake to the Delta would be considered less than significant, and
- ▶ allow a lake-level management regime such that diversions to the lake from the Delta and discharges from the lake to the Delta would result in less-than-significant, and in some cases beneficial, impacts related to Delta hydrology and water quality.

The stormwater management system continues to have sufficient capacity to store and treat stormwater generated by the project while meeting the same performance criteria described in the SEIR and previous addenda.

The SEIR identifies a potentially significant impact related to excavations during construction intersecting shallow groundwater, resulting in releases of sediments or contaminants into the groundwater. This impact is considered less than significant after mitigation. The Tract 3765 VTM proposal and NEPA modifications do not appreciably alter the type and extent of proposed development requiring excavations that might intersect groundwater. Therefore, the potential for adverse effects to groundwater during construction of the Tract 3765 VTM proposal and NEPA modifications would not differ substantially from what is described in the SEIR and previous addenda, and the same mitigation measures identified in the SEIR and previous addenda would also reduce this impact to a less-than-significant level under the Tract 3765 VTM proposal and NEPA modifications.

The SEIR and previous addenda also identify potential impacts to groundwater quality through contaminants entering groundwater via the Central Lake and the human-made Paradise Cut Canal and increases in total dissolved solids (TDS) in City wells resulting from withdrawals of groundwater to serve the River Islands project. These impacts are all considered less than significant in the SEIR and previous addenda. The Tract 3765 VTM proposal and NEPA modifications have the same potential for contaminants to enter the Central Lake (i.e., the same type and extent of development that would generate contaminants) and the same methods and capacity to treat/remove these contaminants with treatment wetlands and other BMPs. Therefore, potential impacts to groundwater quality from operation of these water bodies, which are considered less than significant for the SEIR and previous addenda, would remain less than significant for the Tract 3765 VTM scenario and NEPA modifications. Although the Tract 3765 VTM proposal does not include construction of homes or non-residential uses at this time, if one were to consider the development ultimately planned for the Tract 3765 VTM area, it is not appreciably different from what described in the SEIR and previous addenda. As a result, the demand for potable water under the Tract 3765 VTM proposal and NEPA modifications would not differ appreciably from what is assumed in the SEIR and previous addenda, and impacts related to increases in TDS in City wells resulting from withdrawals of groundwater to serve the River Islands project would remain less than significant.

An impact related to water consumption resulting from the River Islands project making water unavailable to other users is also identified in the SEIR and previous addenda. The impact is considered less-than-significant. Again, because the development that would ultimately occur within Tract 3765 VTM area and related water demand would not appreciably differ from that described in the SEIR and previous addenda, this impact would remain less than significant.

In summary, implementation of the Tract 3765 VTM proposal and NEPA modifications would not result in any new significant impacts related to hydrology and water quality, significant changes in the severity of previously identified impacts related to hydrology and water quality, or significant changes in the effectiveness or applicability of mitigation measures and project alternatives related to hydrology and water quality.

3.9 HAZARDOUS MATERIALS AND PUBLIC HEALTH

Since certification of the River Islands SEIR and related project approvals in 2003, and adoption of the previous VTMs, no changes to the regulatory background or existing conditions relative to hazardous materials and public

health have occurred that would trigger the need for subsequent environmental review of the Tract 3765 VTM proposal or NEPA modifications.

The SEIR and previous addenda identify hazardous materials and public health impacts related to storage, use, and transport of hazardous materials during project construction and operation (less than significant); potential exposure of construction workers, residents, and others to hazardous materials that may currently be on the project site (significant); and use of recycled water to irrigate public areas at the project site (less than significant). The single significant impact among these three identified in the SEIR and previous addenda, the potential exposure of construction workers, residents, and others to hazardous materials that may currently be on the project site, would be reduced to a less-than-significant level with mitigation.

The Tract 3765 VTM proposal and NEPA modifications include the same land uses already considered in the SEIR and previous addenda; therefore, the Tract 3765 proposal and NEPA modifications would not alter the potential for project operations to use, store, transport, or generate hazardous materials or introduce land uses that would have greater sensitivity to hazardous materials. The Tract 3765 VTM proposal and NEPA modifications do not include any construction methods that would result in additional storage, use, transport, or generation of hazardous materials relative to construction methods assumed in the SEIR and previous addenda. Therefore, the less-than-significant impact in the SEIR and previous addenda related to this topic would remain less than significant under the Tract 3765 VTM proposal and NEPA modifications.

Similarly, because there would be no substantial changes in the land uses and construction methods under the Tract 3765 VTM proposal and NEPA modifications compared to those included in the SEIR and previous addenda, the Tract 3765 VTM proposal and NEPA modifications would not result in any new significant or substantially more severe impacts related to potential exposure of construction workers, residents, and others to hazardous materials that may currently be present on the project site. This impact would remain significant under the Tract 3765 VTM proposal and NEPA modifications and would be reduced to a less-than-significant level using the same mitigation measures identified in the SEIR.

Finally, proposed development associated with the Tract 3765 VTM proposal and NEPA modifications would make the same use of recycled water on the same land uses as considered in the SEIR and previous addenda. Therefore, potential health risk impacts associated with the use of recycled water, which are considered less than significant in the SEIR, would also be considered less than significant under the Tract 3765 VTM proposal and NEPA modifications.

Implementation of the Tract 3765 VTM proposal and NEPA modifications would not result in any new significant impacts related to hazardous materials and public health, significant changes in the severity of previously identified impacts related to hazardous materials and public health, or significant changes in the effectiveness or applicability of mitigation measures and project alternatives related to hazardous materials and public health.

3.10 PUBLIC SERVICES

Since certification of the River Islands SEIR and related project approvals in 2003, and adoption of the previous VTMs no changes to the regulatory background or existing conditions relative to public services have occurred

that would trigger the need for subsequent environmental review of the Tract 3765 VTM proposal and NEPA modifications.

The SEIR and previous addenda identify public service impacts related to obstruction of roadways during construction that potentially slows emergency vehicle access, increased demand for fire protection facilities and services, increased demand for water-related emergency facilities and services, increased demand for water flows for fire suppression (fire flow), increased demand for police protection facilities and services, increased demand for animal control facilities and services, and increased demand for school facilities and services. All of these impacts are considered significant and would be reduced to a less-than-significant level with mitigation. The SEIR and previous addenda also identify a public services impact related to increased generation of solid waste and an associated increase in demand for landfill capacity. However, this impact is considered less than significant because of sufficient available capacity at existing landfills.

There are no substantial changes in the land uses and construction methods under the Tract 3765 VTM proposal and NEPA modifications compared to those included in the SEIR and previous addenda. The Tract 3765 VTM proposal and NEPA modifications would not result in any new significant or substantially more severe impacts related to demand for, or provision, of public services; obstruction of roadways during construction that could slow emergency vehicle access; and generation of waste requiring disposal in a landfill. The same mitigation measures identified in the SEIR that would reduce significant impacts to less than significant levels would achieve the same result under the Tract 3765 VTM proposal and NEPA modifications.

In summary, implementation of the Tract 3765 VTM proposal and NEPA modifications would not result in any new significant impacts related to public services, significant changes in the severity of previously identified impacts related to public services, or significant changes in the effectiveness or applicability of mitigation measures and project alternatives related to public services.

3.11 PUBLIC UTILITIES

Since certification of the River Islands SEIR and related project approvals in 2003, and adoption of the previous VTMs, no changes to the regulatory background relative to public utilities have occurred that would trigger the need for subsequent environmental review of the Tract 3765 VTM proposal and NEPA modifications.

As stated in the second Addendum prepared for the River Islands Project, in regard to existing conditions, since certification of the SEIR and related project approvals, the South San Joaquin Irrigation District (SSJID) South County Surface Water Supply Project (SCSWSP) has been completed. The SEIR identified a significant impact related to water supply, not because the City did not have rights to sufficient water to serve the project and existing and future development in the City, but because the SCSWSP had not been completed at that time and water deliveries from this source were not available. Because the SCSWSP has been completed and the City is receiving water deliveries from SSJID, the significant water supply impact identified in the SEIR is no longer applicable, or would be considered less than significant if the SEIR were prepared today.

The SEIR and previous addenda identified public utilities impacts related to:

- ▶ demand for potable water (significant),

- ▶ environmental impacts associated with the development of new city wells (less than significant based on previously adopted mitigation identified in the City's Water, Wastewater, and Recycled Water Master Plan EIR),
- ▶ demand for wastewater treatment capacity (significant),
- ▶ environmental impacts associated with the expansion of Water Recycling Plan (WRP) #1 and construction of WRPs #2 and #3 (significant),
- ▶ demand for recycled water storage and disposal capacity during Phases 1a and 1 of project development (less than significant),
- ▶ demand for recycled water storage and disposal capacity for Phase 2 of project development (significant), and
- ▶ stormwater/surface runoff management (less than significant).

Of the four significant impacts that are identified above, all but one of them (the environmental impact associated with the expansion of WRP #1 and construction of WRPs #2 and #3) could be reduced to less-than-significant levels with mitigation adopted as part of the River Islands Project.

The Tract 3765 VTM proposal does not include development at this time; however, if one were to consider future development within the Tract 3765 VTM area, as well as any project modifications associated with the NEPA modifications, development that would result in demands for potable water, wastewater, recycled water, and urban storm drainage would be the same as evaluated in the SEIR and previous addenda. At full project buildout under the Tract 3765 VTM proposal and incorporating the NEPA modifications, demand for public utilities, methods for the provision of public utilities, and the capacity of public utility systems serving the project would be the same as described in the SEIR and previous addenda. Public utilities impacts identified in the SEIR and previous addenda, as well as mitigation measures and the effectiveness of mitigation measures, would be the same under the Tract 3765 VTM and NEPA modifications.

In summary, implementation of the Tract 3765 VTM proposal and NEPA modifications would not result in new significant impacts related to public utilities, significant changes in the severity of previously identified impacts related to public utilities, or significant changes in the effectiveness or applicability of mitigation measures and project alternatives related to public utilities.

3.12 RECREATION

Since certification of the River Islands SEIR and related project approvals in 2003, and adoption of the previous VTMs, no changes to the regulatory background or existing conditions relative to recreation resources have occurred that would trigger the need for subsequent environmental review of the Tract 3765 VTM proposal and NEPA modifications.

The SEIR and previous addenda identified recreation impacts related to demand for neighborhood and community parks, reduced recreational boating opportunities, and consistency with the open space designations. The impact

related to reduced recreational boating opportunities is less than significant; the remaining two impacts are beneficial.

The Tract 3765 VTM proposal does not include development at this time; however, if one were to consider future development within the Tract 3765 VTM area, as well as any project modifications associated with the NEPA modifications, development that would result in demands for recreation facilities would be the same as evaluated in the SEIR and previous addenda. The total acreage of parks and similar recreational facilities would also be the same (or greater). Therefore, there would be no change in impacts related to demand for neighborhood and community parks and consistency with open space designations and these impacts would remain beneficial under the Tract 3765 VTM proposal and NEPA modifications.

The elimination of back bays and modifications of boat docks resulting from the NEPA modifications alters the availability of water based recreation associated with the project compared to the development scenarios evaluated in the SEIR and previous addenda. Back bays would provide opportunities for water based activities such swimming, boating, and fishing as well as parks with a shoreline/beach component. Although some of these activities may be provided by constructed water features within the project levees and not connected to adjacent rivers and Paradise Cut, there will be an overall reduction in the availability of these classes of recreational opportunities resulting from the NEPA modifications. Some of this reduction would be compensated for through placement of fishing piers along adjacent rivers and Paradise Cut included as part of the NEPA modifications; however, an overall reduction would still occur. However, as stated above, the total acreage of parks and similar recreation facilities would be the same under the Tract 3765 VTM proposal and NEPA modifications compared to the development scenarios evaluated in the SEIR and previous addenda. The NEPA modifications simply reduce the availability of one class of recreational activity, water based recreation, but do not change the overall amount or availability of recreational facilities. Therefore, impacts related to demand/provision of neighborhood and community parks do not change as a result of the NEPA modifications and remain beneficial.

As identified previously in Table 2-1, included in Section 2.5.2, “NEPA Modifications”, as part of the NEPA modifications the total amount of boat berths provided along the San Joaquin River, Old River, and Paradise Cut would be reduced from 921 berths included in the SEIR and previous addenda to 675 berths. Although the reduction in boat berths limits access to recreational boating opportunities provided by the project, access remains far greater than under existing conditions. The less than significant impact identified in the SEIR and later addenda related to reduced recreational boating opportunities results from project docks along the San Joaquin River and Old River requiring “no wake” zones in these river reaches. The no wake zones result in the removal of the opportunity for water skiing and similar activities now available on these river reaches. The modifications of boat docks included in the NEPA modifications do not alter the length or location of river reaches requiring no wake zones and the less than significant impact identified in the SEIR and later addenda related to reduced recreational boating opportunities remains less than significant under the Tract 3765 VTM proposal and NEPA modifications.

In summary, implementation of the Tract 3765 VTM proposal and NEPA modifications would not result in new significant impacts related to recreation, significant changes in the severity of previously identified impacts related to recreation, or significant changes in the effectiveness or applicability of mitigation measures and project alternatives related to recreation.

3.13 AGRICULTURAL RESOURCES

Since certification of the River Islands SEIR and related project approvals in 2003, and adoption of the previous VTMs, no changes to the regulatory background relative to agricultural resources have occurred that would trigger the need for subsequent environmental review of the Tract 3765 VTM proposal and NEPA modifications.

As stated in the second Addendum prepared for the River Islands Project, in regard to existing conditions, since certification of the SEIR and related project approvals, all Williamson Act contracts that apply to lands included in the SEIR Phase 1 development area and the Tract 3694 VTM development proposal area have been cancelled. There are existing contracts that are still in affect within the Phase 2 area (i.e., Tract 3765 VTM area). However, Notices of Non-Renewal have been filed with San Joaquin County and these contracts will expire before any development begins. Therefore, cancellation of contracts (vs. expiration of contracts), which is considered significant in the SEIR, would not occur. Approval of the Tract 3765 VTM proposal and NEPA modifications would not alter impacts related to Williamson Act contract cancellations as described in the SEIR and previous addenda, and in fact, delays in implementation of development in the Phase 2 area (which are unrelated to consideration of the Tract 3765 VTM proposal and NEPA modifications) will result in lessening of this impact as contracts expire rather than being cancelled.

The SEIR and previous addenda also identified agricultural resource impacts related to conversion of important farmland (significant) and adjacent landowner/user conflicts (potentially significant). No mitigation is available to reduce impacts related to the conversion of important farmland to a less-than-significant level; therefore, this impact is considered significant and unavoidable. Impacts related to adjacent landowner/user conflicts can be reduced to less than significant with mitigation identified in the SEIR.

The Tract 3765 VTM proposal does not include development at this time; however, if one were to consider future development within the Tract 3765 VTM area, as well as any project modifications associated with the NEPA modifications, the overall development footprint and resulting conversion of important farmland to a non-agricultural use is the same as described in the SEIR and previous addenda. Because of the similarities in the development footprint, type of development, and staging of development, potential conflicts between ongoing agricultural activities and adjacent new development under the Tract 3765 VTM proposal and NEPA modifications would not be appreciably different from that described in the SEIR and previous addenda.

No mitigation is available to reduce impacts related to the conversion of important farmland to a less-than-significant level (i.e., no new important farmland can be created to replace what is lost); therefore, this impact is considered significant and unavoidable and was covered in the City's previous approval of the project with the SEIR in 2003. For the same reasons described in the SEIR and previous addenda, this impact would remain significant and unavoidable under the Tract 3765 VTM proposal and NEPA modification.

Impacts associated with potential conflicts between ongoing agricultural activities and adjacent new development identified as significant in the SEIR and previous addenda would remain significant under the Tract 3765 proposal and NEPA modifications. The mitigation measures identified in the SEIR to reduce the impact to a less-than-significant level would also reduce the impact to less than significant under the Tract 3765 VTM and NEPA modifications.

Implementation of the Tract 3765 VTM proposal and NEPA modifications would not result in any new significant impacts related to agricultural resources, significant changes in the severity of previously identified impacts related to agricultural resources, or significant changes in the effectiveness or applicability of mitigation measures and project alternatives related to agricultural resources.

3.14 TERRESTRIAL BIOLOGY

Since certification of the River Islands SEIR and related project approvals in 2003, and adoption of the previous VTMs, no changes to the regulatory background or existing conditions relative to terrestrial biology have occurred that would trigger the need for subsequent environmental review of the Tract 3765 VTM proposal and NEPA modifications.

The SEIR and previous addenda identified terrestrial biology impacts related to the following categories of effects:

- ▶ general biological resources (less than significant);
- ▶ special-status plants (potentially significant);
- ▶ Valley elderberry longhorn beetle (significant);
- ▶ giant garter snake (significant);
- ▶ western pond turtle (potentially significant);
- ▶ Swainson's hawk (significant);
- ▶ Aleutian Canada goose and greater sandhill crane (less than significant);
- ▶ burrowing owl (significant);
- ▶ colonial nesting birds (less than significant);
- ▶ ground-nesting or streamside/lakeside-nesting birds (potentially significant);
- ▶ birds nesting in isolated trees or shrubs outside of riparian habitat (potentially significant);
- ▶ birds nesting along riparian corridors (significant);
- ▶ snowy egret, American white pelican, double-crested cormorant, and white-faced ibis (less than significant);
- ▶ ferruginous hawk, mountain plover, merlin, and long-billed curlew (less than significant);
- ▶ common tree-nesting raptors (significant);
- ▶ special-status bats (less than significant);
- ▶ riparian brush rabbit (significant);
- ▶ jurisdictional waters of the United States and riparian habitat (significant);
- ▶ wildlife corridors (significant); and
- ▶ biological resources associated with off-site facilities (potentially significant).

All 14 impacts identified as significant or potentially significant would be reduced to less than significant with mitigation identified in the SEIR.

The Tract 3765 VTM proposal and NEPA modifications do not appreciably alter the type or extent of development included in the project compared to the SEIR and previous addenda; therefore, with limited exceptions, at full buildout, impacts on terrestrial biological resources resulting from construction and operation of project development and the implementation and effectiveness of associated mitigation measures would not be different from that described in the SEIR and previous addenda. One exception is impacts on jurisdictional

waters of the United States. With the avoidance of special aquatic features included in the NEPA modifications, the overall acreage of fill of jurisdictional waters would be less than that described in the SEIR. Effects on wildlife species associated with avoidance of this pond (e.g., western pond turtle) would also be reduced. The elimination of back bays also removes the need for river dredging to create the back bay entrances and associated impacts on jurisdictional waters. Elimination of the back bays also removes the potential for restoration of riparian vegetation on the back bay levee remnants left along the San Joaquin and Old Rivers after back bay construction; however, this habitat restoration was not considered in the SEIR and previous addenda as mitigation or in the evaluation of impacts on terrestrial resources. Habitat restoration on back bay levee remnants was simply considered an “opportunity” or an additional project benefit outside the SEIR impact/mitigation analysis. Therefore, loss of this restoration potential does not alter impact conclusions for terrestrial biological resources in the SEIR and previous addenda.

Modifications to boat docks, inclusion of fishing piers, and further details on bridge construction only slightly alter or provide clarifying information on project elements already evaluated in the SEIR and previous addenda. These modifications/clarifications have little to no effect on terrestrial biological resources and do not alter the impact conclusions or mitigation measures described in the SEIR and previous addenda.

Considering the flood protection improvement modifications included in the NEPA modifications, if the No-Action Flood Protection Option is implemented, this could alter the timing of impacts and mitigation described in the SEIR and previous addenda. In the SEIR and previous addenda, it was assumed that the Paradise Cut canal and setback levee would be completed prior to development in the Phase 2 area, providing a physical separation between habitat and special-status species in Paradise Cut (e.g., riparian brush rabbit) and potential indirect effects from adjacent development (e.g., entrance of humans and pets into Paradise Cut, introduction of feral cats into Paradise Cut). If the No-Action Flood Protection Option were implemented, Phase 2 development could occur prior to the physical barriers of the Paradise Cut canal and setback levee being in place, increasing potential indirect adverse effects of development on terrestrial biological resources in Paradise Cut. However, if the No-Action Flood Protection Option is implemented, Califia LLC would pay applicable San Joaquin Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) fees, implement applicable SJMSCP impact minimization measures, and implement planned non-native species controls in Paradise Cut (e.g., feral cat control). These measures would reduce indirect effects of project development on terrestrial biological resources in Paradise Cut to within the range described in the SEIR and previous addenda; no new significant impacts would occur and there would not be a substantial increase in any previously identified significant impacts.

The interim seepage berm option and construction of waterside bench areas included in the NEPA modification flood protection improvement modifications do not alter the project’s disturbance footprint or development scenario and therefore do not alter affects on terrestrial biological resources relative to those described in the SEIR and previous addenda. It should be noted that although the waterside bench areas are included in the NEPA modifications largely because of reduced woody vegetation planting opportunities resulting from the Corps’ 2009 Levee Vegetation Guidance, project implementation will still result in a net increase in waterside vegetation plantings (landscaping and habitat restoration) and associated improvements to habitat conditions. However, similar to what is described above for the back bay levee remnants, shoreline vegetation planting along the San Joaquin River and Old River were considered an “opportunity” or an additional project benefit outside in the SEIR and were not included in the SEIR impact/mitigation analysis.

Also included in the NEPA modification flood protection improvement modifications, in the Upper Paradise Cut improvement area near the Paradise Weir, is the potential reduction or elimination of the lowering of the bench immediately downstream of the Weir and replacing it with an additional setback levee placed 150-250 feet to north of the existing levee. The bench area in question supports habitat for riparian brush rabbit and removal of vegetation and soil to lower the bench is considered a significant impact on this species in the SEIR. This impact would be mitigated to a less than significant level through restoration of habitat on the bench and elsewhere in Paradise Cut and other measures. A reduction in the level of lowering as part of the flood protection improvement modifications would still remove the habitat and the impacts and mitigation would be the same as described in the SEIR. If the acreage of area lowered were reduced or the lowering were eliminated, the impact to riparian brush rabbit would also be reduced or eliminated.

In summary, implementation of the tract 3765 VTM proposal and NEPA modifications would not result in any new significant impacts related to terrestrial biology, significant changes in the severity of previously identified impacts related to terrestrial biology, or significant changes in the effectiveness or applicability of mitigation measures and project alternatives related to terrestrial biology.

3.15 FISHERIES

Since certification of the River Islands SEIR and related project approvals in 2003, and adoption of the previous VTMs, no changes to the existing conditions relative to fisheries have occurred that would trigger the need for subsequent environmental review of the Tract 3765 VTM proposal and NEPA modifications.

As stated in the second Addendum prepared for the River Islands Project, in regard to the regulatory background, since certification of the SEIR and related project approvals, the National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS) proposed listing populations of North American green sturgeon south of the Eel River as threatened under the federal Endangered Species Act (ESA). The listing proposal was released on April 5, 2005 and was identified in the first Addendum addressing the Tract 3491 VTM. On April 7, 2006, after certification of the first Addendum, NOAA Fisheries made a decision on the listing proposal released the previous year and listed the green sturgeon as threatened under the ESA. The green sturgeon was identified as a state and federal Species of Concern when the SEIR was certified. As identified in the SEIR, the green sturgeon is expected to forage in, and migrate through, the lower San Joaquin River and south Delta, which would include waterways around the River Islands project site. However, the species has not been reported in, nor is it expected to spawn in, the River Islands area due to a lack of suitable spawning habitat. Although the green sturgeon now receives a greater level of protection under the ESA than when the SEIR was certified and first Addendum was adopted, the change in listing status does not alter any impact conclusions or mitigation measures in the SEIR or previous addenda. Green sturgeon would use waterways in the project area in the same manner as salmonid species (salmon and steelhead) known to inhabit the project vicinity: for migration, and to a smaller extent, for foraging. Therefore, impacts identified in the SEIR and previous addendum related to salmonid species protected under the ESA would apply to green sturgeon in the same manner currently described in these documents. Mitigation measures identified in the SEIR and previous addendum related to listed salmonid species would also apply to green sturgeon and would be equally effective in reducing significant impacts to less-than-significant levels. Therefore, where the SEIR identifies no significant unavoidable impacts related to listed salmonids (or other special status fish species), the same conclusion would apply to green sturgeon.

The SEIR and/or the previous addenda identified fisheries impacts related to:

- ▶ RID Area construction sediment (less than significant),
- ▶ levee breaching (significant),
- ▶ bridge and utility crossings (significant),
- ▶ the Paradise Cut Bridges (significant),
- ▶ dock construction (less than significant),
- ▶ structural habitat features (ranges from less than significant to beneficial),
- ▶ entrainment in project pumps (beneficial),
- ▶ maintenance dredging of back bays (significant),
- ▶ habitat modification in Paradise Cut (beneficial),
- ▶ diversion of chinook salmon smolts (less than significant),
- ▶ creation of new fish habitat in the RID Area (beneficial),
- ▶ introduction of exotic fish into the Delta (less than significant), and
- ▶ increased water consumption (less than significant).

All the significant impacts listed above would be reduced to less than significant with mitigation identified in the SEIR.

As stated previously in the evaluation of hydrology and water quality, impacts related to construction sediment in the project development area (i.e., RID Area) contributing to water quality contamination would not be altered appreciably by the Tract 3765 VTM proposal or NEPA modifications as the construction footprint (with minor modifications such as the elimination of back bays) and the type of development are not altered relative to that evaluated in the SEIR and previous addenda. This impact mechanism, as it relates to fisheries (i.e., RID Area construction sediment), would continue to result in a less than significant impact under the Tract 3765 VTM proposal and NEPA modifications.

The levee breaching impact on fisheries identified in the SEIR and previous addenda relates to breaching of levees along the San Joaquin River and Old River to create entrances for back bays. Because of the elimination of all but the Lathrop Landing back bay associated with the NEPA modifications, this impact would be substantially reduced under the Tract 3765 VTM proposal and NEPA modifications. Although the impact would continue to be considered significant (even though substantially reduced), it would also continue to be reduced to a less than significant level with mitigation identified in the SEIR and previous addenda. The same conclusion is true for the significant fisheries impact identified in the SEIR related to maintenance dredging of back bays. For the reasons described above, this impact would be substantially reduced with elimination of back bays, but would remain significant under the Tract 3765 VTM proposal and NEPA modifications and would be reduced to a less than significant level with mitigation.

The Tract 3765 VTM proposal does not alter planned utility crossings and bridges associated with the project and therefore would not alter fisheries impacts associated with these facilities. The NEPA modifications do not affect project utility crossings but provide further detail regarding the design and construction of project bridges; however the bridge details still remain consistent with the assumptions regarding the bridges in the SEIR and previous addenda. A portion of the additional bridge details consist of specific measures to minimize fisheries impacts. Therefore, fishery impacts associated with bridge and utility crossings and the Paradise Cut Bridges

would be consistent with those described in the SEIR and previous addenda, and could be lessened. These impacts would remain significant and would continue to be reduced to a less than significant level with mitigation.

Although the NEPA modifications include differences in the type and number of shoreline docks compared to the SEIR and previous addenda (i.e., all group docks rather than group and individual docks, reduced number of berths, addition of fishing piers), these changes would result in equal or lesser fishery impacts related to dock construction compared to the SEIR. This impact would remain less than significant under the Tract 3765 VTM proposal and NEPA modifications.

The fisheries related structural habitat features identified in the SEIR that would result in less than significant to beneficial impacts (e.g., habitat plantings) would not be substantially altered by the Tract 3765 VTM proposal and NEPA modifications. The impact would continue to range from less than significant to beneficial. No new significant adverse impact would occur.

The beneficial fisheries impact identified in the SEIR related to entrainment in project pumps primarily results from the replacement of multiple existing agricultural water intake pumps along the San Joaquin River, Old River, and Paradise Cut with two screened pump facilities to support water levels in the project's Central Lake. This modification of water intake infrastructure is included, unchanged, in the Tract 3765 VTM proposal and NEPA modifications. The beneficial impact identified in the SEIR and previous addenda would continue under the Tract 3765 VTM proposal and NEPA modifications. No new significant adverse impact would occur.

As described previously in the evaluation of hydrology and water quality, the operation and performance of the Central Lake as a stormwater management and water quality system would not be appreciably altered by the Tract 3765 VTM proposal and NEPA modifications. Therefore, fisheries impacts described in the SEIR and previous addenda related to central lake operation (water discharges to the Delta and altered hydrology from water discharges) would not differ appreciably from implementation of the Tract 3765 VTM proposal and NEPA modifications. These impacts would remain beneficial, or less than significant, and no new significant impacts would occur.

A beneficial fisheries impact is identified in the SEIR related to planned habitat modifications in Paradise Cut (e.g., riparian habitat plantings enhancing/creating shaded riverine aquatic habitat). Although these habitat modifications may be delayed or somewhat reduced under the Tract 3765 VTM proposal and NEPA modifications (e.g., Paradise Cut improvements that provide space for new riparian vegetation are delayed, compliance with USACE vegetation management policies results in less land available for riparian vegetation planting than originally anticipated), substantial beneficial habitat modifications would still occur, resulting in the beneficial effect identified in the SEIR and previous addenda. No new significant impacts would occur because past "less-than-significant" conclusions for fisheries are not dependant on the beneficial effects of habitat improvements in Paradise Cut.

The less than significant fisheries impact identified in the SEIR related to diversion of chinook salmon smolts involves the potential for increased flows entering Paradise Cut from the San Joaquin River to carry with them additional salmon smolts that would be diverted from the San Joaquin River to Old River (a less desirable course for migration to the open ocean). Changes in flows (timing and volume) are not considered sufficient to divert a substantial number of smolts relative to existing conditions and the impact is considered less than significant. The

Tract 3765 VTM proposal and NEPA modifications do not appreciably alter the planned function of Paradise Cut as a flood control feature and the frequency and volume of flows into the cut would not differ appreciably from those described in the SEIR and previous addenda. Therefore, this impact would remain less than significant under the Tract 3765 VTM proposal and NEPA modifications. No new significant impacts would occur.

Fisheries impacts identified in the SEIR and previous addenda related to the creation of new fish habitat in the RID Area (beneficial) and introduction of exotic fish into the Delta (less than significant) both center on the construction and operation of the project's Central Lake. Creation of the lake would provide a new water body suitable for fish and would therefore create new fish habitat. The Central Lake could also become a source for exotic fish species (e.g., project residents release non-native fish into the lake) that could leave the lake and enter the Delta. However, this impact is considered less than significant because there is not a direct hydrologic connection between the Central Lake and nearby Delta waterways, and adult fish, juveniles, and eggs are not expected to survive passing through pumps that would move water from the Central Lake to outfalls in Paradise Cut when needed. As stated previously, the Tract 3765 VTM proposal and NEPA modifications would not alter the operation and performance of the Central Lake. Therefore, these impacts would remain beneficial and less than significant, respectively, under the Tract 3765 VTM proposal and NEPA modifications. No new significant impacts would occur.

As stated previously in the analysis of hydrology and water quality, although the Tract 3765 VTM proposal does not include construction of homes or non-residential uses at this time, if one were to consider the development ultimately planned for the Tract 3765 VTM area compared to that contemplated in the Amended West Lathrop Specific Plan (i.e., the most current River Islands proposal), it is not appreciably different from what described in the SEIR and previous addenda. As a result, the demand for potable water under the Tract 3765 VTM proposal and NEPA modifications would not differ appreciably from what is assumed in the SEIR and previous addenda. Therefore, fisheries impacts identified in the SEIR related to increased water consumption would not be altered under the Tract 3765 VTM proposal and NEPA modifications and the impact would remain less than significant. No new significant impacts would occur.

The Tract 3765 VTM proposal and NEPA modifications do not generate new fishery impact mechanisms beyond those already included in the SEIR and previous addenda and described above.

In summary, implementation of the Tract 3765 VTM proposal and NEPA modifications would not result in any new significant impacts related to fisheries, significant changes in the severity of previously identified impacts related to fisheries, or significant changes in the effectiveness or applicability of mitigation measures and project alternatives related to fisheries.

3.16 CULTURAL RESOURCES

Since certification of the River Islands SEIR and related project approvals in 2003, and adoption of the VTMs, no changes to the regulatory background relative to cultural resources have occurred that would trigger the need for subsequent environmental review of the Tract 3765 VTM proposal and NEPA modifications.

The SEIR identifies impacts to an archeological site identifies as site RI-1 (described as impacts to "recorded archeological sites") as potentially significant. The site is located in the Phase 1 development area and would not

be affected by the Tract 3765 VTM proposal (covers the Phase 2 development area) or the NEPA modifications. Therefore, impacts to this site and the implementation/effectiveness of mitigation measures would not be altered by the Tract 3765 VTM proposal and the NEPA modifications.

The SEIR and previous addenda identify additional cultural resources impacts related to listed archeological sites (significant), historic properties (significant), undiscovered/unrecorded archeological sites (potentially significant), undiscovered/unrecorded human remains (significant), and off-site resources (significant). All these impacts would be reduced to less-than-significant levels with mitigation.

Cultural resources impacts related to undiscovered/unrecorded resources and off-site resources address the potential to encounter currently unknown resources in the River Islands Development Area (RID Area [i.e., area proposed for development within the Steward Tract]) or within off-site utility corridors because of these resources either being below the ground surface or not yet being encountered during surveys. Because the potential still exists to encounter currently unknown cultural resources during construction of development associated with the Tract 3765 VTM proposal and construction of the NEPA modifications, significant impacts identified in the SEIR related to this issue would still be considered significant under the Tract 3765 VTM proposal and NEPA modifications. The mitigation measures identified in the SEIR for these impacts would also reduce the impacts to less-than significant levels under the Tract 3765 VTM proposal and NEPA modifications.

Impacts identified in the SEIR and previous addenda related to listed archeological sites and historic properties involve the degradation of visual character in the vicinity of historic/archeological resources resulting from project development. This impact is considered significant and would be reduced to a less than significant level with mitigation. Historic/archeological resources considered in these impacts include the railroad drawbridge crossing the San Joaquin River just north of the Manthey Road bridge; the landing place for the sail launch Comet (a California historic landmark), which is on the San Joaquin River near the railroad drawbridge; and the agricultural silo complex just southwest of the railroad drawbridge. Construction of modern structures near these sites could degrade remaining views that reflect the historic context of the sites and is considered a significant impact. Under the development scenario described in the SEIR, views of the railroad drawbridge and the Comet landing site would be adversely affected by the Golden Valley Parkway bridge over the San Joaquin River and houses on the high-ground corridor north of the bridge; these are Phase 1 impacts that are not applicable to the Phase 2 area comprising the Tract 3765 VTM proposal. The NEPA modifications provide greater detail regarding the design and construction methods for the Golden Valley Parkway bridge over the San Joaquin River. These additional details are consistent with assumptions used in the SEIR and previous addenda and do not alter the intensity or nature of this impact or the implementation or effectiveness of mitigation. Mitigation measures included in the SEIR would continue to reduce this impact to a less than significant level with the NEPA modifications.

Under the development scenarios described in the SEIR and the previous addenda, views of the agricultural silo complex would be adversely affected by construction of modern buildings in the portion of the Employment Center north and northwest of the silos. This is an area included in Phase 1 of project development. The Tract 3765 VTM proposal and the NEPA modifications do not include development in this area and would not affect this impact.

In summary, implementation of the Tract 3765 VTM proposal and NEPA modifications would not result in any new significant impacts related to cultural resources, significant changes in the severity of previously identified impacts related to cultural resources, or significant changes in the effectiveness or applicability of mitigation measures and project alternatives related to cultural resources.

3.17 AESTHETIC RESOURCES

Since certification of the River Islands SEIR and related project approvals in 2003, and adoption of the previous VTMs, no changes to the regulatory background or existing conditions relative to aesthetic resources have occurred that would trigger the need for subsequent environmental review of the Tract 3765 VTM proposal and NEPA modifications.

The SEIR and previous addenda identify aesthetic resources impacts related to views of the site from surrounding lands (less than significant), views from I-5 and the I-5/I-205/State Route 120 merge segment (less than significant), views for recreational boaters (less than significant), nighttime views (less than significant), views of the grain silos and the railroad bridge (less than significant), and design and function of walls and fences/consistency with the WLSP (potentially significant). The one potentially significant impact would be reduced to less than significant with mitigation identified in the SEIR.

The Tract 3765 VTM proposal includes the same development types in the same district locations as described in the SEIR and previous addenda. Proposed walls and fences included in the project area are also the same. Development in the Tract 3765 VTM area visible from various vantage points, as well as affects on nighttime views, would not differ from what is described in the SEIR and previous addenda and impacts related to these issues would remain less than significant. The potentially significant impact associated with the function of walls and fences and consistency with the WLSP would be the same, and would continue to be reduced to a less than significant level with the same mitigation.

Although the NEPA modifications involve levee work, they do not alter levee heights; therefore, project views would not change via this mechanism. The NEPA modifications provide greater detail regarding the design and construction methods for project bridges. These additional details are consistent with assumptions used in the SEIR and previous addenda and do not alter the aesthetic effects of the bridges.

NEPA modifications along the shore of the San Joaquin River, Old River, and Paradise Cut would alter views for recreational boaters relative to what was evaluated in the SEIR and previous addenda. The modification to docks and addition of fishing piers is a shift in approach to waterside features relative to the SEIR, moving solely to group docks rather than inclusion of some individual docks, implanting an overall reduction in the number of project berths, and adding public fishing piers. However, the visual experience for recreational boaters would not be substantially altered by this shift when comparing the SEIR to the NEPA modifications and the impact would remain less than significant. Elimination of back bays removes an opportunity to improve views along the San Joaquin River and Old River as the back bays provided the possibility for riverside habitat restoration along the back bay levee remnants. Although the opportunity for this specific aesthetic benefit is removed, the less than significant conclusion in the SEIR is not contingent on this benefit, and some riverside vegetation plantings remain in the project. For example, the waterside bench areas included in the NEPA modifications provide opportunities for waterside vegetation planting. Although the waterside bench areas are included in the NEPA

modifications largely because of reduced woody vegetation planting opportunities resulting from the Corps' 2009 Levee Vegetation Guidance, project implementation will still result in a net increase in waterside vegetation plantings (landscaping and habitat restoration) and improvement to the visual quality of the levees and river shoreline. Therefore, the less than significant impact related to views for recreational boaters identified in the SEIR and previous addenda would remain less than significant with the NEPA modifications.

In summary, implementation of the Tract 3765 VTM proposal would not result in any new significant impacts related to aesthetic resources, significant changes in the severity of previously identified impacts related to aesthetic resources, or significant changes in the effectiveness or applicability of mitigation measures and project alternatives related to aesthetic resources.

3.18 GROWTH-INDUCING IMPACTS

Since certification of the River Islands SEIR and related project approvals in 2003, and adoption of the previous VTMs, no changes to the regulatory background or existing conditions related to growth-inducing impacts have occurred that would trigger the need for subsequent environmental review of the Tract 3765 VTM proposal and NEPA modifications.

As described in various sections above, at full buildout of the River Islands project, land uses under the Tract 3765 VTM proposal and NEPA modifications are the same, or differ only slightly from those described in the SEIR and previous addenda. No changes are proposed regarding the number and type of dwelling units, population and employee-generating land uses (i.e., dwelling units), and job-generating land uses (Town Center, Employment Center). Therefore, the Tract 3765 VTM proposal and NEPA modifications would not result in a substantial change in the overall growth-inducing impacts from those described in the SEIR related to fostering economic or population growth or the construction of additional housing and the provision of services since these changes do not create any new development and do not change buildout development assumptions from the SEIR or previous approvals.

Overall, implementation of the Tract 3765 VTM proposal and NEPA modifications would not result in any new significant growth-inducing impacts, significant changes in the severity of previously identified growth-inducing impacts, or significant changes in the effectiveness or applicability of mitigation measures and project alternatives related to growth-inducing impacts.

3.19 CUMULATIVE IMPACTS

Since certification of the River Islands SEIR and related project approvals in 2003, and adoption of the previous VTMs, no changes to the regulatory background related to cumulative impacts have occurred that would trigger the need for subsequent environmental review of the Tract 3765 VTM proposal and NEPA modifications.

In regard to existing conditions, since 2003 a number of projects listed in the cumulative impacts section of the SEIR have either been completed, or construction is underway (e.g., Hampton Inn Hotel, Best Western (now Holiday Inn Express) Hotel, Trailer Proz, Walgreen's, Save Mart shopping center and others). However, because CEQA requires that a cumulative impact analysis consider past, present, and reasonably foreseeable future

projects, the fact that some projects that were considered “future projects” in the SEIR are now complete or under construction does not affect their consideration in the cumulative-impact analysis.

In some instances more detail is now available regarding a related project than was available when the SEIR was certified in 2003 (e.g., Central Lathrop Specific Plan). However, the cumulative analysis in the SEIR included both a list approach (list of projects) and a plan approach (using development assumptions included in applicable general plans, specific plans, and the SJMSCP), resulting in a thorough and comprehensive consideration of local and regional development in the evaluation of cumulative impacts.

Therefore, additional details or minor modifications regarding a specific project included in the cumulative impact analysis would not alter the overall conclusions in the analysis. As indicated in the cumulative impacts analysis in the SEIR and repeated in the previous addenda, implementing the River Islands project would contribute to significant cumulative impacts related to traffic; air quality; noise; geology, soils, and mineral resources; public services; public utilities; agricultural resources; fisheries; and odor. It also would potentially contribute to significant surface water quality impacts. As described in the SEIR and repeated in the previous addenda, these impacts are a product of cumulative growth, and no feasible mitigation is available to reduce these impacts to less-than-significant levels; therefore, these cumulative impacts are considered significant and unavoidable.

As described in various sections above, land uses under the Tract 3765 VTM proposal and NEPA modifications are the same, or differ only slightly from those described in the SEIR and previous addenda. Therefore, project contributions to cumulative impacts under the Tract 3765 VTM proposal and NEPA modifications would not be substantially greater than those described in the SEIR and previous addendum (and could be less for some resources based on the elimination of back bays and modifications to boat docks). Implementation of the Tract 3765 VTM proposal and NEPA modifications would not result in any new significant cumulative impacts, significant changes in the severity of previously identified cumulative impacts, or significant changes in the effectiveness or applicability of mitigation measures and project alternatives related to cumulative impacts.

3.20 ALTERNATIVES

Since certification of the River Islands SEIR and related project approvals in 2003, and adoption of the previous VTMs, no changes to the regulatory background or existing conditions relative to project alternatives have occurred that would trigger the need for subsequent environmental review of the Tract 3765 VTM proposal and NEPA modifications.

The River Islands SEIR includes analysis of three alternatives, a No-Project (No-Development) Alternative, a No Project (WLSP) Alternative, and an Environmental Constraints (50% Development) Alternative. The alternatives analysis in the SEIR also describes several other alternatives that were considered, but then rejected from further consideration.

Impacts associated with the alternatives evaluated in the SEIR were compared against impacts resulting from full project buildout. Alternatives were also evaluated for their ability to meet project goals and objectives.

Implementation of the Tract 3765 VTM proposal and NEPA modifications does not alter the evaluation of full buildout of the River Islands project because the SEIR fully evaluated the impacts of development of the entire River Islands project. Full project buildout under the Tract 3765 VTM proposal and NEPA modifications would

be virtually the same as the full buildout described in the SEIR, with minor refinements and modifications addressed in this Addendum (e.g., elimination of back bays, modifications to boat docks, avoidance of special aquatic features) that do not alter the conclusions in the SEIR and subsequent addenda. Therefore, the comparison of impacts associated with the proposed project and impacts associated with each project alternative included in the SEIR would not be altered under the Tract 3765 VTM proposal and NEPA modifications.

The Tract 3765 VTM proposal and NEPA modifications include/support the same project goals and objectives as described in the SEIR and previous addenda and do not conflict with these goals and objectives. Therefore, the feasibility of alternatives relative to their ability to meet these goals and objectives would be the same under the SEIR and all other development scenarios. Implementation of the Tract 3765 VTM proposal and NEPA modifications would not result in alternatives previously found to be infeasible being categorized as feasible.

3.21 CONCLUSION

Based on the analysis of the categories of environmental impacts evaluated above, the Tract 3765 VTM proposal and NEPA modifications result in none of the conditions described in Section 15162 of the State CEQA Guidelines calling for preparation of a SEIR. In summary, the Tract 3765 VTM proposal, the NEPA modifications, and any altered circumstances or new information of substantial importance since certification of the River Islands SEIR and related project approvals in 2003, and adoption of the Tract 3491 VTM in 2005 or the adoption of the Tract 3694 VTM in 2007:

- ▶ will not result in any new significant environmental effects,
- ▶ will not substantially increase the severity of previously identified effects,
- ▶ will not result in mitigation measures or alternatives previously found to be infeasible becoming feasible, and
- ▶ will not result in availability/implementation of mitigation measures or alternatives that are considerably different from those analyzed in the previous document that would substantially reduce one or more significant effects on the environment.

These conclusions confirm that this Addendum to the River Islands SEIR is the appropriate document to record and evaluate the minor project modifications associated with implementation of the Tract 3765 VTM proposal and NEPA modifications.

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4 REFERENCES

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