

**CALENDAR ITEM
C63**

A 17
S 5

03/29/12
WP 8752.9
N. Lavoie

AMENDMENT OF LEASE

LESSEE:

City of Lathrop

AREA, LAND TYPE, AND LOCATION:

Sovereign land in the San Joaquin River at Bradshaw's Crossing, city of Lathrop, San Joaquin County.

AUTHORIZED USE:

Construction, use, and maintenance of two parallel bridges, containing public and private utility conduits, riprap, and temporary construction trestles.

LEASE TERM:

25 years, beginning June 28, 2007.

CONSIDERATION:

The public use and benefit, with the State reserving the right at any time to set a monetary rent if the Commission finds such action to be in the State's best interest.

PROPOSED AMENDMENT:

Amend the lease to revise the project completion date from October 31, 2011, to within the term of the lease (through June 27, 2032). All other terms and conditions of the lease shall remain in effect without amendment.

OTHER PERTINENT INFORMATION:

1. Applicant has the right to use the upland adjoining the lease premises.
2. On June 28, 2007, the Commission authorized a 25-year General Lease – Public Agency Use to the city of Lathrop for the construction, use, and maintenance of two parallel bridges, containing public and private utility conduits, riprap, and temporary construction trestles crossing the San Joaquin River. That lease will expire June 27, 2032.

CALENDAR ITEM NO. C63 (CONT'D)

3. The Lessee has applied for an amendment of the lease to allow more time to complete construction of the project. The bridge, to be known as Bradshaw's Crossing, will connect Stewart Tract to the Mossdale Village master planned community. One span of the bridge, currently under construction, will be completed in 2012. Once completed, this span will serve traffic for the foreseeable future, in both directions until the second span is constructed. Construction of the second span of the bridge is undetermined at this time. The recent economic downturn has delayed development of the Mossdale Village and other residential projects in Lathrop. These delays in development have reduced traffic demands, financial resources, and postponed bridge construction. Due to this uncertainty, staff is recommending an amendment which allows the completion of the entire project by any date within the term of the lease.
4. A Subsequent Environmental Impact Report (SEIR), State Clearinghouse No. 1993112027, was prepared for this project by the City of Lathrop and certified on January 29, 2003. The California State Lands Commission staff has reviewed such document and Mitigation Monitoring Program prepared in conformance with the provisions of CEQA (Pub. Resources Code, § 21081.6) and adopted by the city of Lathrop.

Findings made in conformance with the State CEQA Guidelines (Cal. Code Regs., tit. 14, §§ 15091, 15096) are contained in Exhibit D, attached hereto.

5. This activity involves lands identified as possessing significant environmental values pursuant to Public Resources Code section 6370 et seq., but such activity will not affect those significant lands. Based upon the staff's consultation with the persons nominating such lands and through the CEQA review process, it is the staff's opinion that the project, as proposed, is consistent with its use classification.

EXHIBITS:

- A. Land Description
- B. Site and Location Map
- C. Mitigation Monitoring Program
- D. Findings

CALENDAR ITEM NO. **C63** (CONT'D)

RECOMMENDED ACTION:

It is recommended that the Commission:

CEQA FINDING:

Find that an a Supplemental Environmental Impact Report, State Clearinghouse No. 1993112027, was prepared for this Project by the City of Lathrop and certified on January 29, 2003, and that the Commission has reviewed and considered the information contained therein.

Adopt the Mitigation Monitoring Program, as contained in Exhibit C, attached hereto.

Adopt the Findings, made in conformance with California Code of Regulations, Title 14, sections 15091 and 15096, subdivision (h), as contained in Exhibit D, attached hereto.

SIGNIFICANT LANDS INVENTORY FINDING:

Find that this activity is consistent with the use classification designated by the Commission for the land pursuant to Public Resources Code section 6370 et seq.

AUTHORIZATION:

Authorize the Amendment of Lease No. PRC 8752.9, a General Lease – Public Agency Use, to revise the project completion date from October 31, 2011 to allow for completion of the authorized improvements by any date prior to the expiration of the lease, effective October 31, 2011; and all other terms and conditions of the lease will remain in effect without amendment.

EXHIBIT A
LAND DESCRIPTION
BRADSHAW'S CROSSING
LEASE AREA ACROSS THE SAN JOAQUIN RIVER
LATHROP, CALIFORNIA

A STRIP OF TIDE AND SUBMERGED LAND 146.00 FEET WIDE, SITUATE IN THE INCORPORATED TERRITORY OF THE CITY OF LATHROP, COUNTY OF SAN JOAQUIN, STATE OF CALIFORNIA, LYING ADJACENT TO PROTRACTED SECTION 33, TOWNSHIP 1 SOUTH, RANGE 6 EAST, MOUNT DIABLO MERIDIAN, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT BEING ON THE NORTHEASTERN LINE OF TRACT 39, AS SAID TRACT IS SHOWN AND SO DESIGNATED ON THAT CERTAIN RECORD OF SURVEY, RECORDED AUGUST 4, 2004, IN BOOK 35 OF SURVEYS AT PAGE 142, IN THE OFFICE OF THE COUNTY RECORDER OF SAN JOAQUIN COUNTY, SAID POINT BEARS SOUTH 76°12'33" EAST 6,229.35 FEET FROM USGS STATION TIDAL 6 RESET 1958 (PID HS0159), STAMPED "NO. 6 1949 RESET 1958", HAVING CALIFORNIA STATE PLANE COORDINATES (CCS83, EPOCH 1997.30) OF NORTH= 2,117,914.04 FEET, EAST= 6,320,437.87 FEET;

THENCE, FROM SAID POINT OF COMMENCEMENT, LEAVING SAID NORTHEASTERN LINE, NORTH 31°37'00" EAST 8.56 FEET TO A POINT AT THE INTERSECTION OF THE CENTERLINE OF SAID 146.00 FOOT-WIDE LEASE AREA WITH THE WEST BANK OF THE SAN JOAQUIN RIVER, SAID POINT ALSO BEING THE TRUE POINT OF BEGINNING FOR THIS DESCRIPTION;

THENCE, FROM SAID POINT OF BEGINNING, LEAVING SAID CENTERLINE, ALONG SAID WEST BANK, NORTH 51°26'22" WEST 73.54 FEET;

THENCE, LEAVING SAID WEST BANK, NORTH 31°37'00" EAST 245.72 FEET TO THE EAST BANK OF THE SAN JOAQUIN RIVER;

THENCE, ALONG SAID EAST BANK, SOUTH 58°08'50" EAST 73.00 FEET TO A POINT BEING ON THE CENTERLINE OF SAID 146.00 FOOT-WIDE LEASE AREA THAT BEARS NORTH 31°37'00" EAST FROM SAID POINT OF BEGINNING;

THENCE, LEAVING SAID CENTERLINE, ALONG SAID EAST BANK OF THE SAN JOAQUIN RIVER, SOUTH 55°26'09" EAST 73.10 FEET;

THENCE, LEAVING SAID EAST BANK, SOUTH 31°37'00" WEST 267.54 FEET TO SAID WEST BANK OF THE SAN JOAQUIN RIVER;

LAND DESCRIPTION
BRADSHAW'S CROSSING
LEASE AREA ACROSS THE SAN JOAQUIN RIVER

W26209
MAY 31, 2007
JOB NO.:905-00

THENCE, ALONG SAID WEST BANK OF THE SAN JOAQUIN RIVER THE FOLLOWING
TWO (2) COURSES:

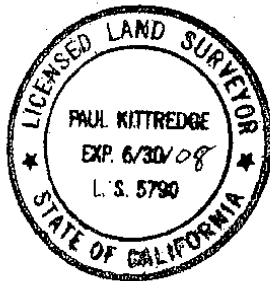
- 1) NORTH 42°12'39" WEST 51.54 FEET, AND
- 2) NORTH 51°58'01" WEST 23.65 FEET TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM ANY PORTION LYING LANDWARD OF THE ORDINARY HIGH
WATER MARK OF THE SAN JOAQUIN RIVER.

CONTAINING AN AREA OF 37,195 SQUARE FEET, MORE OR LESS. NOTE THAT THE
AREA IS APPROXIMATE AND IS BASED UPON SAID BANKS. SAID BANKS RUN ALONG
THE APPROXIMATE WATER LINE OF THE SAN JOAQUIN RIVER, AND WERE COMPILED
USING PHOTOGRAMMETRIC TECHNIQUES BASED ON AERIAL PHOTOGRAPHY DATED
FEBRUARY 28, 2003, FOR TOPOGRAPHY AT A SCALE OF 1"=40' WITH A 1-FOOT
CONTOUR INTERVAL.

BEARINGS ARE BASED ON THE CALIFORNIA STATE PLANE COORDINATE SYSTEM
1983, ZONE 3 (SPC CA3), NAD83 (CORS 96, EPOCH 2002). ALL DISTANCES
SHOWN ARE GROUND DISTANCES. MULTIPLY GROUND DISTANCES BY 0.99993352 TO
OBTAIN GRID DISTANCES.

END OF DESCRIPTION

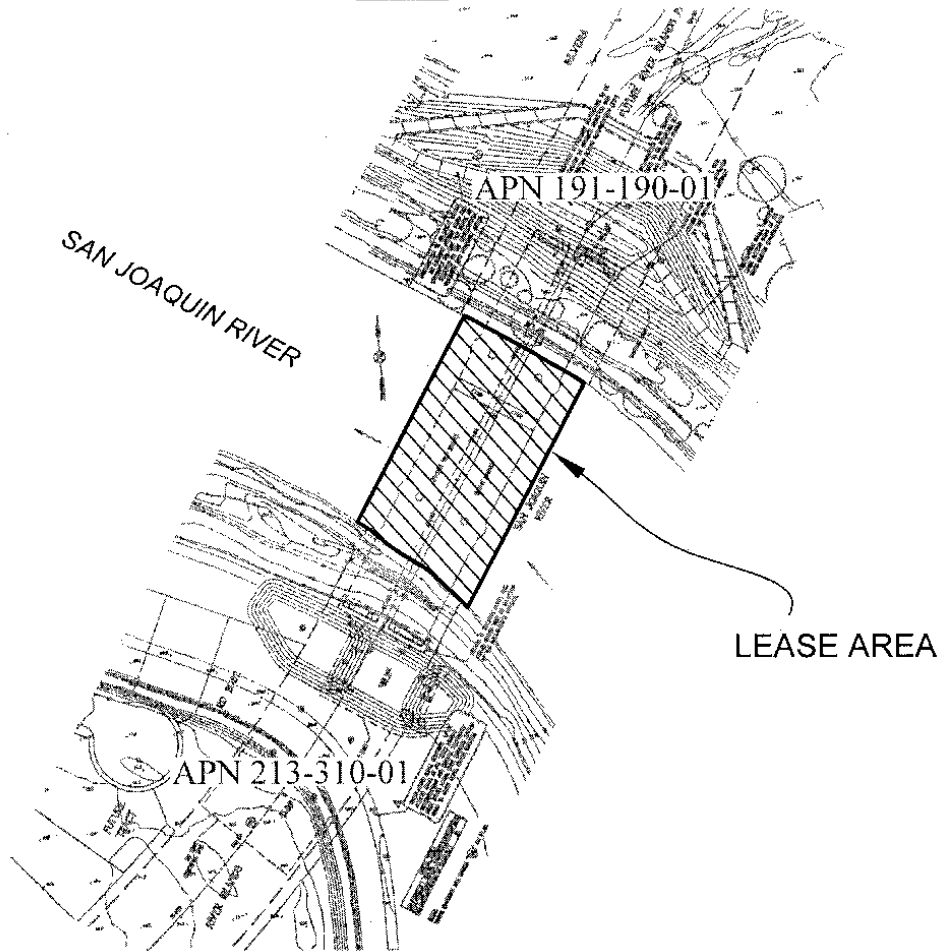


Paul A. Kittredge

PAUL A. KITTREDGE
L.S. NO. 5790
EXPIRES: JUNE 30, 2008

NO SCALE

SITE



APN: 213-310-01, 191-190-01
BRADSHAW'S CROSSING

NO SCALE

LOCATION



Exhibit B

PRC 8752.9
CITY OF LATHROP
GENERAL LEASE -
RIGHT-OF-WAY USE
SAN JOAQUIN RIVER
SAN JOAQUIN CO.



This Exhibit is solely for purposes of generally defining the lease premises, is based on unverified information provided by the Lessee or other parties and is not intended to be, nor shall it be construed as, a waiver or limitation of any State interest in the subject or any other property.

EXHIBIT C
RIVER ISLANDS AT LATHROP
MITIGATION MONITORING PROGRAM

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
4.2 LAND USE			
<p>4.2-a: Conflict with the Lathrop General Plan and West Lathrop Specific Plan. The proposed project would not be consistent with the General Plan and the WLSP, which envision the Califia/Gold Rush City project, an entertainment-oriented, theme park-centered development. The proposed project is a mixed-use residential/commercial development, which is inconsistent with the land use objectives and designations identified for the project site in the General Plan and the WLSP. However, this land use inconsistency does not, by itself, conflict with any City of Lathrop environmental plans, goals, or regulations adopted for the purposes of avoiding or mitigating an environmental effect.</p>	LTS	No mitigation measures are necessary.	LTS
4.3 POPULATION, EMPLOYMENT, AND HOUSING			
<p>4.3-a: Population Growth and Housing Demand During Construction. The proposed project would generate a temporary increase in employment in the City of approximately 300 construction jobs during the peak construction period. Existing construction personnel in the region are considered sufficient to meet demand associated with the proposed project; therefore, this temporary increase in employment is not expected to generate any substantial new population growth in the area or generate the need for substantial additional housing for construction workers.</p>	LTS	No mitigation measures are necessary.	LTS
<p>4.3-b: Population Growth. The proposed project would develop new homes, which would result in direct increases in population. The estimated increases in population exceed planned growth anticipated in the General Plan, the WLSP, and the Master Plan. However, inconsistencies solely between planned and anticipated population growth would not cause direct environmental effects. Impacts associated with development needed to accommodate increased population growth are evaluated in appropriate sections of this SEIR.</p>	LTS	No mitigation measures are necessary.	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

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<p>4.3-c: Housing Demand from Project Development. Development of the proposed project would increase the number of housing units and jobs. At buildout of Phase 1, the jobs-housing balance index for the project would be 0.62, and at full buildout the index would be 0.76, indicating that the proposed development would be job-rich and therefore could generate demand for new housing in the region for onsite employees. However, because of the existing and projected regional jobs-housing imbalance that is jobs-poor, the jobs generated by the proposed project are expected to be filled in large part by the existing labor pool in the region. The project is therefore not expected to induce substantial new housing demand.</p>	LTS	No mitigation measures are necessary.	LTS
<p>4.3-d: Housing Displacement. Existing residents in the RID Area would be displaced by the proposed project. However, there are only a small number of existing residences in this agricultural area, and most are already owned by the project applicant.</p>	LTS	No mitigation measures are necessary.	LTS
<p>4.3-e: Housing Policies. The General Plan contains various policies and implementation guidelines related to the provision of affordable housing, housing for the elderly and handicapped, and non-single family housing (e.g., apartments). The project is considered consistent with housing policies in the General Plan.</p>	NI	No mitigation measures are necessary.	NI
<p>4.4 TRAFFIC</p>			
<p>Note: The traffic analysis uses the term “baseline” to describe existing conditions and “base case” to describe cumulative conditions modeled through the San Joaquin Council of Governments traffic model.</p>			
<p>4.4-a: Degradation of Levels of Service at Signalized and Unsignalized Intersections (Existing Baseline Plus Project). Phase 1 traffic would degrade the Louise Avenue/Manthey Road intersection to LOS F. With Buildout traffic, the following intersections would degrade to LOS F: Louise Avenue/I-5 ramp, MacArthur Drive/Arbor Avenue, and the Paradise Road/Arbor Avenue. With Phase 1 or</p>	S	The City of Lathrop shall ensure that the project applicant pays its applicable Transportation Impact Fees to provide that the Phase 1 improvements listed below are completed by the time the River Islands project Phase 1 is competed and that the Buildout improvements listed below are completed by the time the River Islands project Buildout is competed or as needed based upon	LTS

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SUMMARY OF IMPACTS AND MITIGATION MEASURES**

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<p>Buildout traffic, the stop sign-controlled Manthey Road/Louise Avenue intersection would be adversely affected. The reason this intersection is affected under existing baseline plus Phase 1 or Buildout conditions and not the base case (cumulative development) is that under any of the base case conditions, this intersection would be eliminated and replaced with the River Islands Parkway/Golden Valley Parkway intersection.</p>		<p>the Stewart Tract Traffic Monitoring Program.</p> <p>For Phase 1, the following improvements shall be provided: <u>Louise Avenue/I-5 Ramps</u>, provide most Phase 2 PSR improvements to the Louise Avenue interchange. <u>River Islands Parkway (currently Louise Avenue)/Manthey Road</u>, signalize, and move the intersection at least an additional 150 feet to the west.</p> <p>For Buildout, the following improvements shall be provided: <u>Louise Avenue/I-5 Ramps</u>, provide most Phase 2 PSR improvements to the Louise Avenue interchange.</p> <p><u>River Islands Parkway (currently Louise Avenue)/Manthey Road</u>, provide exclusive left turn lanes on the north and southbound Manthey Road intersection approaches, provide a third westbound through lane and westbound departure lane on Louise Avenue, which would merge to the proposed two westbound lanes to the west of the intersection.</p> <p><u>Arbor Avenue/Paradise Road</u>, signalize, provide an exclusive right turn lane on the southbound Paradise Road intersection approach, provide an exclusive left turn lane on the Arbor Avenue eastbound intersection approach.</p> <p><u>Arbor Avenue/MacArthur Drive</u>, signalize, provide an exclusive left turn lane on the westbound Arbor Avenue intersection approach, provide an exclusive right turn lane on the northbound MacArthur Drive intersection approach.</p>	
<p>4.4-b: Vehicle Backups Extending from One Intersection through an Adjacent Intersection (Existing Baseline Plus Project). With Phase 1 traffic, vehicle backups would extend from one intersection</p>	S	<p>The City of Lathrop shall ensure that the project applicant pays its applicable Transportation Impact Fees to provide the improvements listed below. For Phase 1, the following</p>	LTS

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<p>through an adjacent intersection during both peak hours for Louise Avenue approaching I-5 ramps and Louise Avenue approaching the Manthey Road intersection. With Buildout traffic, vehicle backups would extend from one intersection through an adjacent intersection during at least one of the peak hours for Louise Avenue approaching I-5 ramps, MacArthur Drive approaching I-205 ramps, and Louise Avenue approaching the Manthey Road intersection. For Phase 1 and Buildout, right-turn and through traffic on Louise Avenue approaching the Manthey Road intersection is affected under existing baseline conditions and not the base case because under any of the base case conditions, this intersection would be eliminated and replaced with the River Islands Parkway/Golden Valley Parkway intersection.</p>		<p>improvements shall be provided: <u>Louise Avenue/I-5 Ramps</u>, implement Mitigation Measure 4.4-a., <u>River Islands Parkway (currently Louise Avenue)/Manthey Road</u>, implement Mitigation Measures 4.4-a. For Buildout, the following improvements shall be provided: <u>Louise Avenue/I-5 Ramps</u>, implement Mitigation Measure 4.4-a; <u>Louise Avenue/Manthey Road</u>, implement Mitigation Measures 4.4-a; <u>MacArthur Drive/I-205 Ramps</u>, provide a second northbound through lane along MacArthur Drive between the east and westbound ramp intersections; and <u>MacArthur Drive/I-205 Ramps</u>, provide a second northbound through lane along MacArthur Drive between the east and westbound ramp intersections and provide north and southbound left turn lanes along MacArthur Drive running the full length between the east and westbound ramp intersections</p>	
<p>4.4-c: Degradation of Freeway Operations (Existing Baseline Plus Project). With Phase 1a traffic, freeway operations on I-205 west of MacArthur Drive would be degraded from LOS D to LOS E during the AM peak hour. With Phase 1 traffic, operations would continue to perform at or would be degraded to an unacceptable level of service along three freeway segments during one of the peak hour: I-205 between I-5 and MacArthur Drive with the project contributing more than a 1% traffic increase; between Paradise Road and MacArthur Drive and west of MacArthur Drive. With Buildout traffic, freeway operations either would continue to perform at an unacceptable level of service, with the project contributing more than 1% of the traffic increase, or would degrade to an unacceptable level of service at six freeway segments during one of the peak hours: I-205, I-5 to Paradise Road, Paradise Road to MacArthur Drive, and west of MacArthur Drive.</p>	S	<p>For Phases 1a, Phase 1 and Buildout, the City of Lathrop shall ensure that the project applicant pays its applicable Transportation Impact Fees for its fair share contribution for I-205 freeway improvements. However, because the needed I-205 improvements are not scheduled to be completed by Caltrans until 2007, and because the development of these improvements is outside the scope of the project (i.e., it is a regional improvement), the River Islands Phase 1a development would result in significant and unavoidable (short term) traffic impacts to the identified I-205 segment until said improvements are completed.</p>	SU (short term)

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>4.4-d: Degradation of Freeway Ramp/Freeway Mainline Merge/Diverge Operation (Existing Baseline Plus Project). With Phase 1a, traffic volumes would increase more than 1% at one ramp merge location and one ramp diverge location already operating at unacceptable levels of service during one of the peak hours: I-5 on-ramp merge from Manthey Road and I-205 off-ramp diverge to MacArthur Drive. With Phase 1, project traffic would produce significant impacts at one ramp merge and two ramp diverge locations during one of the peak hours: I-205 off-ramp diverge to MacArthur Drive would degrade to LOS F, the on-ramp merge from MacArthur Drive would degrade to LOS F, and the off-ramp diverge to MacArthur Drive would continue to operate at LOS E, with more than a 1% increase in traffic attributable to the project. At Buildout, project traffic would produce significant impacts at two ramp merge and two ramp diverge locations during one of the peak hours by either degrading operation from an acceptable to an unacceptable level of service or by providing more than a 1% traffic increase at a location already operating at an unacceptable level of service: I-205 off-ramp/on-ramp merge/diverge at MacArthur Drive</p>	S	<p>To eliminate the degradation of freeway ramp-freeway mainline merge/diverge operation, the City of Lathrop shall ensure that the project applicant pays its applicable Transportation Impact Fees to provide that the improvements listed below.</p> <p>For Phase 1a, the following improvements shall be provided: To fully mitigate operation of the following two merge/diverge areas to preproject condition would require the following improvements: Increase the length of the MacArthur Drive eastbound off-ramp deceleration lane from I-205 adjacent to the freeway by at least 10 feet (or to a minimum length required by Caltrans); increase the length of the Manthey Road southbound on-ramp acceleration lane to I-5 adjacent to the freeway by at least 10 feet (or to a minimum length required by Caltrans). Regarding I-5, Caltrans has indicated an unwillingness to approve geometric improvements at the Manthey Road/I-5 interchange. In addition, the impact on the Manthey Road/I-5 interchange is temporary, since the project proposes to disconnect southbound access from the project to this interchange after Phase 1a. Finally, the anticipated traffic at this location is less than the 800 trips per hour maximum impact established by Caltrans for this interchange, and no other project that would utilize this capacity is progressing toward approval in a time frame that would be affected by the interim use of this capacity by the Project's Phase 1a development. Therefore, the City of Lathrop shall ensure that access from the project to Manthey Road is discontinued when the River Islands Parkway bridge is completed over the San Joaquin River and that no more than 800 residential units ever have access to Manthey Road. For Phase 1a, implementation of Mitigation Measure 4.4-d for the I-205 off-ramp deceleration lane at MacArthur Drive would reduce the potential traffic impact of degradation of freeway ramp-freeway mainline merge/diverge operation on I-205 at that</p>	SU

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Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>location to less-than-significant levels by returning the density of passenger cars per mile per lane to the same as existing conditions.</p> <p>However, although implementation of Mitigation Measure 4.4-d would reduce degradation of freeway ramp-freeway mainline merge/diverge operation on I-5, it is doubtful if Caltrans would approve of these measures. Therefore, there would be a temporary impact (until the River Islands Parkway bridge is constructed) that is not reduced to less-than-significant levels. For Phase 1a, this impact is considered significant and unavoidable.</p> <p>For Phase 1, the following improvements shall be provided: I-205/MacArthur Drive Interchange On- and Off-Ramp Merge/Diverge, increase the lengths of off-ramp deceleration lanes and on-ramp acceleration lane.</p> <p>Acceptable levels of service for the Westbound Off-Ramp diverge and the Westbound On-Ramp merge could only be achieved with the planned widening of the I-205 freeway from 4 up to 6 lanes. This improvement is scheduled to be completed by Caltrans in 2007. However, because construction of this improvement by the proposed project is outside the scope of the project (i.e. it is a regional improvement), the River Islands full buildout would result in significant unavoidable traffic impacts to the identified I-205 merge/diverge areas.</p> <p>For Phase 1, although implementation of Mitigation Measure 4.4-d will ultimately reduce degradation of freeway ramp-freeway mainline merge/diverge operation on I-205, actual freeway improvements may not be implemented by Caltrans rapidly enough to reduce the impact to less-than-significant</p>	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>levels. Therefore, this impact is considered significant and unavoidable.</p> <p>For Buildout, the following improvements shall be provided: I-205/MacArthur Drive Interchange On- and Off-Ramp Merge/Diverge, increase the lengths of and off-ramp deceleration lanes and on-ramp acceleration lanes.</p> <p>Acceptable levels of service for the Westbound Off-Ramp diverge and the Westbound On-Ramp merge could only be achieved with the planned widening of the I-205 freeway from 4 up to 6 lanes. Because this improvement is not scheduled to be completed by Caltrans until 2007, and because the development of this improvement by the proposed project is outside the scope of the project (i.e. it is a regional improvement), the River Islands full buildout would result in significant unavoidable traffic impacts to the identified I-205 merge/diverge areas.</p>	
<p>4.4-e: Degradation of Weaving Movements on I-5 to/from Mossdale Road/Manthey Road Hook Ramps (Existing Baseline Plus Project). There are no significant weaving impacts on I-5 to/from Mossdale Road and Manthey Road hook ramp interchanges for Phase 1a, Phase 1 and Buildout. The reason is that the River Islands project would only access these interchanges during Phase 1a. Under Phase 1 and Buildout conditions, the project would not be expected to add any measurable increase in base case traffic to the Mossdale Road/Manthey Road Hook Ramps since there would only be an emergency vehicle roadway connection between the project and Manthey Road. As a result, these two interchanges would be operating under all scenarios either at an acceptable level of service and would not have a measurable increase in traffic or the interchanges would already be operating at an unacceptable level of service during at least one of the peak hours and would continue to operate at an unacceptable level of service during at</p>	LTS	No mitigation measures are necessary.	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
least one of the peak hours, with the project contributing less than 1% of the traffic increase.			
<p>4.4-f: Degradation of Rural Two-Lane Roadway Operation – (Existing Baseline Plus Project). Phase 1 traffic would create no significant impacts to rural two-lane roads. Buildout traffic would result in unacceptable (LOS D) operation along the three two-lane rural roadways connecting the River Islands development to the I-205 / MacArthur Drive interchange (Paradise Road, Arbor Avenue, MacArthur Drive).</p>	S	<p>The City of Lathrop shall ensure that the project applicant pays its Applicable Transportation Impact Fees to provide the improvements listed below. For Buildout, the following improvements shall be provided: Paradise Road (River Islands Development to Arbor Avenue) and Arbor Avenue (Paradise Road to MacArthur Drive), provide 4 travel lanes (each 12 feet wide), 8-foot paved shoulders, left turn lanes on the approaches to all intersections and continuous two-way left turn lanes at all major driveways. MacArthur Drive (Arbor Avenue to I-205), Provide 4 travel lanes (each 12 feet wide) and 8-foot paved shoulders.</p>	LTS
<p>4.4-g: Degradation of Stewart Road Operation (Existing Baseline Plus Project). For Phase 1a, the project applicant’s proposed widening of Stewart Road (just west of Manthey Road) to contain two 12-foot travel lanes and 3-foot paved shoulders would not meet minimum rural collector road standards of two 12-foot travel lanes and 8-foot-wide shoulders for roadways accommodating more than 3,000 vehicles per day. The applicant is also not proposing to relocate the Union Pacific at-grade crossing gate and signal standards, which would be within 10 feet of the roadways edge of travel way and would not conform to standards for horizontal clearance to obstructions along rural collector roads with design speeds less than 45 miles per hour. In addition, the two sharp 90-degree curves in Stewart Road near Manthey Road do not meet City of Lathrop curve radii minimum requirements. Finally, the sharp 90-degree curve on Stewart Road just west of Manthey Road does not meet minimum stopping sight distance criteria for a 25-mile per hour design speed. For Phase 1 and for Buildout, the project would not use Stewart Road, so there is no impact.</p>	S	<p>For Phase 1a, the City of Lathrop shall ensure that the project applicant construct Stewart Road in its existing alignment to the criteria listed in Mitigation Measure 4.4-g before the roadway is used by any project construction traffic.</p> <p>Implementation of Mitigation Measure 4.4-g for either the existing or the proposed alignment of Stewart Road would reduce the impact of construction traffic on Stewart Road to less-than-significant levels.</p> <p>As alternative mitigation, the project proponents are proposing to have construction traffic enter the site via Manthey Road, and the Paradise Cut levee road via an existing private crossing of the UPRR tracks (formerly SPRR). Due to the inadequate width of the levee to allow two opposing lanes of traffic, the levee would be used to allow west bound construction traffic onto the site, and a new temporary road would be constructed at the base of the levee to allow east bound construction traffic to exit the</p>	LTS

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		<p>site. The levee would be widened at the existing rail crossing and the two directions of travel would be returned to the same grade to cross the railroad tracks side by side. The existing private at-grade railroad crossing would be used only for construction traffic during daylight hours. Use of this private railroad crossing is subject to review and approval by UPRR and the PUC.</p> <p>Implementation of Mitigation Measure 4.4-g for the alternate construction access to the site would reduce the potential impact of construction traffic on Stewart Road to less-than-significant levels by providing the required improvements to meet the AASHTO rural collector road standard.</p>	
<p>4.4-h: Degradation of Manthey Road San Joaquin River Bridge Operation (Existing Baseline Plus Project). Project Phase 1a would increase existing traffic using the 500-foot-long Manthey Road San Joaquin River Bridge from about 550 to about 1,800 two-way vehicles per day. This total would include northbound heavy truck traffic associated with sand and gravel mining operation to the east of the I-5 freeway. The bridge's two 12-foot travel lanes and no shoulder area would potentially meet standards for existing bridges along rural collector roads (which indicate the need for a 24-foot minimum clear roadway width with 1,500 to 2,000 vehicles per day). However, it should be noted that these criteria pertain to bridges 100 feet or less in length: there are no published AASHTO criteria for rural collector bridges longer than 100 feet. For Phase 1 and for Buildout, the project is anticipated to have minimal impact upon Manthey Road, and so the impact is considered less than significant. This Phase 1a issue represents a potentially significant impact.</p>	PS	<p>For Phase 1a, there is no feasible cost effective measure that could widen the Manthey Road travel lanes on its bridge crossing the San Joaquin River. Prior to a determination that the traffic on Manthey Road has reached 150 vehicles per hour through the Stewart Tract Traffic Monitoring Programs, one of the alternative measures noted below shall be constructed:</p> <ol style="list-style-type: none"> 1. Post (and regularly enforce) a 15- to 20-mile per hour speed limit on the bridge –or– 2. Stripe and sign the bridge for one-way northbound traffic flow. This would allow all non-project sand and gravel trucks as well as project construction trucks to reach the Louise Avenue interchange for freeway access. However, a secondary impact of this measure would require all inbound traffic to the project as well as local Marina/residential and sand/gravel operations to use the Mossdale Road/Manthey Road hook ramps. This would increase weaving movements to/from the Mossdale Road/Manthey Road hook ramps –or– 	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>3. Stripe and sign a single travel lane on the Manthey Road bridge crossing the San Joaquin River and have alternating signal controlled northbound and southbound traffic flow.</p> <p>Implementation of Mitigation Measure 4.4-h alternatives 1 and 2 would reduce the potential impact on the Manthey Road San Joaquin River Bridge to less-than-significant levels, although alternative 2 would result in a potentially significant secondary impact. Mitigation Measure 3 would reduce the potential impact on the Manthey Road San Joaquin River Bridge to less-than-significant levels by imposing safety features or by limiting the traffic on the bridge to meet criteria for rural collector bridges.</p>	
<p>4.4-i: Construction Traffic (Existing Baseline Plus Project). For Phase 1a, the project applicant estimates there could be up to 300 construction workers accessing the project site on any given weekday. All but 75 workers are expected to access the site before 6:30 AM and all but 75 would exit the site before 4:30 PM. No construction truck traffic is expected before 8:00 AM or after 4:00 PM. Should these projections and commute times be followed, operational impacts would remain at a less-than-significant level. However, if these times are not followed, operational problems could arise. Also, construction traffic, in particular truck traffic, could degrade pavement condition along all roadways used for access. In addition, construction truck traffic (not staying within their lanes) would cause safety concerns on the sharp 90-degree curves of Stewart Road (during Phase 1a). For Phase 1 and Buildout, the access to the site via River Islands Parkway is adequate to support construction traffic.</p>	S	<p>For Phase 1a, the City of Lathrop shall ensure that the project applicant agrees to the conditions described in section 4.4 of this SEIR regulating construction traffic.</p> <p>As alternative mitigation to the impact along Stewart Road, the project proponents are proposing to have construction traffic enter the site via Manthey Road and the Paradise Cut levee road via an existing private crossing of the UPRR tracks (formerly SPRR). Due to the inadequate width of the levee to allow two opposing lanes of traffic, the levee would be used to allow west bound construction traffic onto the site, and a new temporary road would be constructed at the base of the levee to allow east bound construction traffic to exit the site. The levee would be widened at the existing rail crossing and the two directions of travel would be returned to the same grade to cross the railroad tracks side by side. The existing private at-grade railroad crossing would be used only for construction traffic during daylight hours. Use of this private railroad crossing would be subject to review and approval by UPRR and the PUC. This segregation of construction traffic would completely mitigate the</p>	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>effects of construction traffic along Stewart Road.</p> <p>Implementation of Mitigation Measure 4.4-i for either the construction access restrictions noted or provision of the alternate construction access to the site would reduce the potential impact of construction traffic to less-than-significant levels by limiting construction traffic on Stewart Road and on Paradise Road.</p>	
<p>4.4-j: Degradation of Levels of Service at Signalized and Unsignalized Intersections (Base Case Plus Project). Phase 1a (2007) traffic would create no significant intersection impacts. With Phase 1(2015) traffic, the following intersections would degrade to LOS F (or would not degrade an LOS level but would operate at LOS F and contribute more than a 1% traffic increase to the intersection): Louise Avenue/I-5 ramps and MacArthur Drive/Arbor Avenue. Buildout (2025) traffic would create the following impacts: Louise Avenue/I-5 northbound ramps would continue to operate at LOS F, with the project contributing more than 1% of the traffic increase to the intersection; Louise Avenue/I-5 southbound ramps would operate at LOS E; MacArthur Drive/I-205 ramp would operate at LOS F; and River Islands Parkway/Golden Valley Parkway intersection would operate at LOS E.</p>	S	<p>The City of Lathrop shall ensure that the project applicant pays its applicable Transportation Impact Fees to provide that the Phase 1 improvements listed below. For Phase 1 (2015), the improvements described in mitigation measures 4.4-j shall be provided:</p> <p>SECONDARY IMPACTS: The development of the loop ramp at the Louise Avenue/I-5 interchange required by the above mitigation would require right-of-way purchase in the southeast quadrant of the interchange, and relocation of the existing Louise Avenue/I-5 northbound off-ramp in order to accommodate the loop ramp. This, in turn, would require the relocation or elimination of an existing gas station in the southeast quadrant. The potential general environmental effects of moving the off-ramp is programmatically evaluated in sections 4.14 and 4.16 of this SEIR (Terrestrial Biology and Cultural Resources, respectively). This improvement will also be subject to future project-level CEQA review once specific design drawings for the improvement have been prepared.</p> <p>Implementation of Mitigation Measure 4.4-j would reduce potential traffic impacts associated with degradation of LOS at signalized and unsignalized intersections to less-than-significant levels by returning them to an LOS of D or better.</p>	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>SECONDARY IMPACTS: The development of the loop ramps at the Louise Avenue/I-5 interchange required by the above mitigation would require right-of-way purchase in the northwest and southeast quadrants of the interchange, and relocation of the existing Louise Avenue/I-5 northbound and southbound off-ramps in order to accommodate the loop ramps. This, in turn, would require the relocation or elimination of an existing statutory business in the northwest quadrant of the Louise Avenue/I-5 interchange and relocation or elimination of an existing gas station in the southeast quadrant. The potential general environmental effects of moving the off-ramps is programmatically evaluated in sections 4.14 and 4.16 of this SEIR (Terrestrial Biology and Cultural Resources, respectively). These improvements will also be subject to future project-level CEQA review once specific design drawings for the improvements have been prepared.</p>	
<p>4.4-k: Vehicle Backups Extending from One Intersection through an Adjacent Intersection (Base Case Plus Project). Phase 1a (2007) traffic would create no significant vehicle backup impacts. With Phase 1 (2015) traffic, vehicle backups would extend from one intersection through an adjacent intersection during the PM peak hour for Louise Avenue approaching I-5 northbound ramps and MacArthur Drive approaching I-205 ramps. With Buildout (2025) traffic, vehicle backups would extend from one intersection through an adjacent intersection during at least one of the peak hours for Louise Avenue traffic approaching I-5 northbound ramps, Paradise Road southbound through traffic approaching I-205 ramps, and MacArthur Drive northbound left-turn traffic approaching I-205 ramps.</p>	S	<p>The City of Lathrop shall ensure that the project applicant pays its applicable Transportation Impact Fees to provide the improvements listed below. See mitigation measures 4.4-k for a description of Phase 1 and Buildout improvements for Louise Avenue/I-5 and MacArthur Drive/I-205 that would be provided.</p>	LTS
<p>4.4-l: Degradation of Freeway Operations (Base Case Plus Project). With Phase 1a (2007) traffic, freeway operations on I-205, both and , west of MacArthur Drive would continue to operate at LOS</p>	S	<p>The City of Lathrop shall ensure that the project applicant pays its applicable Transportation Impact Fees for its fair share contribution for I-5, SR 120 and I-205 freeway improvements.</p>	SU

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>E or F during one of the peak hours, with the project increasing traffic more than 1%. With Phase 1 (2015) traffic, operations at four freeway segments would continue to perform at or would be degraded to unacceptable levels of service, with the project contributing more than 1% of the traffic increase to all four segments, during one of the peak hours: I-5 north of Louise Avenue and I-205 west of MacArthur Drive. With Buildout (2025) traffic, the project contributes more than a 1% traffic increase at each of the following freeway segments during at least one of the peak hours: I-5 north of Louise Avenue and south of I-205 and between Louise Avenue and SR 120 and between SR 120 and I-205; I-205 between Paradise Road and MacArthur Drive and west of MacArthur Drive; and SR 120 east of I-5.</p>		<p>However, because the needed improvements are not currently scheduled by Caltrans to be completed by the time the demand is anticipated (2007, 2015 & 2025), and because the development of these improvements by the proposed project is outside the scope of the project (i.e., it is a regional improvement), the River Islands Phase 1a, Phase 1 and Buildout development would result in significant unavoidable (short and long term) traffic impacts to the identified freeway segments until said improvements are completed.</p> <p>Phase 1a (2007), Phase 1 (2015), Buildout (2025 improvements that are needed are identified in Mitigation Measure 4.4-l.</p>	
<p>4.4-m: Degradation of Freeway Ramp/Freeway Mainline Merge/Diverge Operation (Base Case Plus Project). Phase 1a (2007) project traffic would increase volumes more than 1% at two ramp merge and two ramp diverge locations already operating at unacceptable levels of service during one of the peak hours: I-5 on-ramp merge from Manthey Road and from Mossdale Road; and off-ramp diverge to Mossdale Road and MacArthur Drive. With Phase 1 (2015), project traffic would contribute more than a 1% traffic increase at these five locations, significantly degrading base case freeway operation at the following freeway ramp merge and diverge areas during one of the peak hours: I-5 off-ramp diverge to Louise Avenue, which would continue to operate at LOS E; the I-5 on-ramp merge from Louise Avenue, which would degrade from LOS E operations to LOS F; and I-205 on- and off-ramp merge/diverge from MacArthur Drive, which would continue to operate at LOS F. With Buildout (2025), project traffic would significantly degrade base case freeway on-ramp merge and off-ramp diverge operations during one or both of the peak hours: I-5 on- and off-ramp merge/diverge to Louise Avenue, I-5 on- and off-ramp merge/diverge to Manthey Road, I-205 on-ramp merge from Paradise Road, I-205 off-ramp diverge to Paradise Road, I-205</p>	S	<p>The City of Lathrop shall ensure that the project applicant pays its applicable Transportation Impact Fees to provide the improvements listed below.</p> <p>Phase 1a (2007) improvements that are needed to fully mitigate operation of the following four merge/diverge areas to bring Base Case+ Project operation to the same levels as Base Case conditions (should no additional freeway lanes be provided along I-5 or I-205 as part of needed Base Case improvements) would require the improvements listed in Mitigation Measure 4.4-m.</p> <p>For Phase 1a (2007), implementation of Mitigation Measure 4.4-m will ultimately reduce degradation of freeway ramp-freeway mainline merge/diverge operation on I-205 to a less than significant level. However, although implementation of Mitigation Measure 4.4-m would reduce degradation of freeway ramp-freeway mainline merge/diverge operation on I-5, it is doubtful if Caltrans would approve of these measures. Therefore, there would be a temporary impact (until the River</p>	SU

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
on- and off-ramp merge/diverge to MacArthur Drive.		<p>Islands Parkway bridge is constructed) that is not reduced to less-than-significant levels. Therefore, this impact is considered significant and unavoidable.</p> <p>For Phase 1 (2015) and Buildout (2025), although implementation of Mitigation Measure 4.4-m will ultimately reduce degradation of freeway ramp-freeway mainline merge/diverge improvements, actual freeway improvements may not be implemented by Caltrans rapidly enough to reduce the impact to less-than-significant levels. Therefore, this impact is considered significant and unavoidable.</p>	
<p>4.4-n: Degradation of Weaving Movements on I-5 to/from Mossdale Road/Manthey Road Hook Ramps(Base Case Plus Project). There are no significant weaving impacts anticipated at the I-5 to/from Mossdale Road and Manthey Road hook ramp interchanges. The River Islands project would access these interchanges only during Phase 1a (2007). Under Phase 1 (2015) and Buildout (2025) conditions, the project would not be expected to add any measurable increase in base case traffic to the Mossdale Road/Manthey Road Hook Ramps since there would only be an emergency vehicle roadway connection between the project and Manthey Road. As a result, these two interchanges would be operating under all scenarios either at an acceptable level of service and would not have a measurable increase in traffic or the interchanges would already be operating at an unacceptable level of service during at least one of the peak hours and would continue to operate at an unacceptable level of service during at least one of the peak hours, with the project contributing less than 1% of the traffic increase.</p>	LTS	No mitigation measures are necessary.	LTS
<p>4.4-o: Degradation of Rural Two-Lane Roadway Operation (Base Case Plus Project). Phase 1a (2007) traffic would create no significant impacts to rural two-lane roads. With Phase 1 (2015) traffic, the</p>	S	The City of Lathrop shall ensure that the project applicant pays its applicable Transportation Impact Fees to provide improvements listed below	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>proposed project would degrade rural two-lane roadway operation to an unacceptable LOS D at the following locations in AM and PM peak hour: Paradise Road, Paradise Cut to Arbor Avenue, Arbor Avenue, Paradise Road to MacArthur Drive. With Buildout (2025) traffic, the proposed project would degrade rural two-lane roadway operation at the following locations: Paradise Road, Paradise Cut to Arbor Avenue (in AM peak hour, degrade to unacceptable LOS D operation. In PM peak hour, degrade to unacceptable LOS E operation) Paradise Road, Arbor Avenue to I-205 (in AM and PM peak hour, degrade to unacceptable LOS E operation); Arbor Avenue, Paradise Road to MacArthur Drive (in AM and PM peak hour, greater than 1% traffic increase with Base Case unacceptable LOS D operation; plus degrade to LOS E operation); MacArthur Drive, Arbor Avenue to I-205 (in PM. peak hour, degrade to unacceptable LOS E operation); Golden Valley Parkway, Paradise Road/Arbor Avenue intersection to the east end of the project site (in the AM and PM Peak Hours, degrade to unacceptable LOS E operation).</p>		<p>See Mitigation Measure 4.4-o for a description of improvements for Phase 1 (2015) and Buildout (2025) impacts.</p>	
<p>4.4-p: Degradation of Stewart Road Operation (Base Case Plus Project). For Phase 1a (2007), the project applicant’s proposed widening of Stewart Road (just west of Manthey Road) to contain two 12-foot travel lanes and 3-foot paved shoulders would not meet minimum rural collector roadway standards of two 12-foot travel lanes and 8-foot-wide shoulders for roadways accommodating more than 3,000 vehicles per day. The applicant is also not proposing to relocate the Union Pacific at-grade crossing gate and signal standards, which would be within 10 feet of the roadways edge of travel way and would not conform to standards for horizontal clearance to obstructions along rural collector roads with design speeds less than 45 miles per hour. In addition, the two sharp 90-degree curves in Stewart Road near Manthey Road do not meet City of Lathrop curve radii minimum requirements. Finally, the sharp 90-degree curve on Stewart Road just west of Manthey Road does not meet minimum stopping sight distance criteria</p>	<p>S</p>	<p>For Phase 1a (2007), the City of Lathrop shall ensure that the project applicant construct Stewart Road in its existing alignment to the following criteria before the roadway is used by any project construction traffic. See Mitigation Measure 4.4-p for a description of the improvements for Stewart Road. The mitigation measures noted above would improve Stewart Road to a greater extent than proposed by the project applicant. In addition, the mitigation measures noted above shall also be provided if Stewart Road is realigned.</p> <p>Implementation of Mitigation Measure 4.4-p for either the existing or the proposed alignment of Stewart Road would reduce the impact of construction traffic on Stewart Road to less-than-significant levels.</p>	<p>LTS</p>

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>for a 25-mile per hour design speed. For Phase 1 (2015) and for Buildout (2025), the project would not use Stewart Road, so there is no impact.</p>		<p>As alternative mitigation, the project proponents are proposing to have construction traffic enter the site via Manthey Road and the Paradise Cut levee road via an existing private crossing of the UPRR tracks (formerly SPRR). Due to the inadequate width of the levee to allow two opposing lanes of traffic, the levee would be used to allow west bound construction traffic onto the site, and a new temporary road would be constructed at the base of the levee to allow east bound construction traffic to exit the site. The levee would be widened at the existing rail crossing and the two directions of travel would be returned to the same grade to cross the railroad tracks side by side. The existing private at-grade railroad crossing would be used only for construction traffic during daylight hours. Use of this private railroad crossing would be subject to review and approval by UPRR and the PUC.</p>	
<p>4.4-q: Degradation of Manthey Road San Joaquin River Bridge Operation (Base Case Plus Project). Project Phase 1a (2007) traffic would increase year 2007 Base Case traffic using the 500-foot-long Manthey Road San Joaquin River Bridge from about 600 to more than 2,000 vehicles per day. This total would include northbound heavy truck traffic associated with the sand and gravel mining operation to the east of the I-5 freeway as well as construction trucks associated with River Islands. The bridge’s two 12-foot travel lanes and no shoulder area would potentially not meet standards for existing bridges along rural collector roads (which indicate the need for a 28-foot minimum clear roadway width). It should be noted, however, that these criteria pertain to bridges 100 feet or less in length: there are no published criteria for rural collector bridges longer than 100 feet. For Phase 1 (2015) and for Buildout (2025), the project is anticipated to have minimally use Manthey Road, and the impact would be less than significant.</p>	PS	<p>For Phase 1a (2007), there is no feasible cost effective measure that could widen the Manthey Road travel lanes on its bridge crossing the San Joaquin River. Prior to a determination that the traffic on Manthey Road has reached 150 vehicles per hour through the Stewart Tract Traffic Monitoring Programs, one of the alternative measures noted below shall be constructed:</p> <ol style="list-style-type: none"> 1. Post (and regularly enforce) a 15- to 20-mile-per-hour speed limit on the bridge –or– 2. Stripe and sign the bridge for one-way northbound traffic flow. This would allow all non-project sand and gravel trucks as well as project construction trucks to reach the Louise Avenue interchange for freeway access. However, a secondary impact of this measure would require all inbound traffic to the project as well as local Marina/residential and sand/gravel operations to use the Mossdale Road/Manthey Road hook ramps. This would increase weaving movements 	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>to the Mossdale Road/Manthey Road hook ramps –or–</p> <p>3. Stripe and sign a single travel lane on the Manthey Road bridge crossing the San Joaquin River and have alternating signal controlled northbound and southbound traffic flow.</p> <p>Implementation of Mitigation Measure 4.4-q alternatives 1 and 2 would reduce the potential impact on the Manthey Road San Joaquin River Bridge to less-than-significant levels, although alternative 2 would result in a potentially significant secondary impact. Mitigation Measure 3 would reduce the potential impact on the Manthey Road San Joaquin River Bridge to less-than-significant levels by imposing safety features or by limiting the traffic on the bridge to meet criteria for rural collector bridges.</p>	
<p>4.4-r: Proposed Internal Circulation Plan (Base Case Plus Project). The proposed Buildout project internal circulation plan would function adequately with acceptable levels of service at all major signalized internal intersections. With regional development and resultant congested peak period freeway operation, it is likely that some subregional through traffic would be using the River Islands roadway system during these periods. This through traffic would use only arterial roadways through the site (River Islands Parkway and Paradise Road). Projections indicate this additional traffic could be accommodated at acceptable levels.</p> <p>However, a review of the proposed Phase 1 internal circulation plan showed that some parts of the plan could result in significant impacts.</p> <p>Regarding Buildout, there is no tentative map for development of the entire project; only Phase 1. However, the UDC for project buildout presents enough detail in order to analyze all major intersections outside Phase 1. The proposed project internal circulation plan at buildout would function adequately with acceptable levels of service at all major</p>	S	<p>For Phase 1 (2015), the City of Lathrop shall ensure that the project applicant revise the Phase I tentative map to incorporate the following changes and provide requested information.</p> <ul style="list-style-type: none"> ▶ Increase right-of-way of Broad Street by at least 24 feet to allow ultimate provision of four through travel lanes. ▶ Increase the right-of-way of North River Islands Parkway and South River Islands parkway by 12 feet on the approaches to major intersections to allow ultimate provision of dual left turn lanes, if and when needed. ▶ Consider eliminating angled parking along Water Street. ▶ Widen all local streets to 36 feet at curves (if parking is to be allowed on both sides of the street) –or– to maintain the proposed 34-foot curb-to-curb width, eliminate on-street parking along the inside of each curve. ▶ Design all local street curves to meet City of Lathrop standards. ▶ Redesign the tentative map to provide at least 400 feet between certain intersections. 	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>signalized internal intersections. However, with regional development and resultant congested peak period freeway operation, it is likely that some subregional through traffic would be using the River Islands roadway system during these periods. Use of project collector roadways by through traffic could potentially result in significant safety concerns.</p> <p>In addition, comments pertaining to Phase I significant impacts regarding less-than-adequate spacing between intersections, inadequate sight lines, widths of local streets at curves, inadequate rights-of-way for four-lane parkways at major intersections, operation of two-lane roundabouts, Canal Street intersection control and concerns of the Lathrop-Manteca Fire District regarding the maximum length of cul-de-sacs would also pertain to those sections of River Islands remaining to be completed by buildout.</p>		<ul style="list-style-type: none"> ▶ Provide a signalized intersection at the North River Islands Parkway/D27 Street-A14 Street intersection. ▶ Redesign A10 Street/K8 Street, K8 Street/K1 Street and both K1 Street/K2 Street intersections to have 90-degree intersection approach legs –or– consider keeping the existing plan and change to one-way couplet operation. ▶ Consider eliminating east-west through traffic flow on either north or south Canal Street by allowing right turns in and out only at each intersection with a north-south street. Stop sign or signal control could then be utilized, if needed, only at the Canal Street intersection allowing east-west through flow. This would eliminate the potential for two closely spaced intersections that may both require traffic control on all north-south collector roadways (such as Broad Street) that intersect both north and south Canal Street. ▶ Provide at least AASHTO (2001) minimum sight lines at all intersections. This may require prohibition of on-street parking or redesign of the tentative map to eliminate less-than-adequate sight lines at certain intersections. <p>The applicant shall submit detailed information (for a three- to five-year historical period) regarding the safe operation of two-lane roundabouts for exactly the same design as is being proposed at three locations along South River Islands Parkway. Volume levels at the surveyed sites should also be about the same as those being projected for buildout conditions within River Islands. Based upon the data presented, if the applicant can make a convincing argument in favor of safe operation of two-lane roundabouts (for autos, pedestrians and bike riders), the City should consider their installation. Even with approval of the roundabouts, it is still recommended that right-of-way be preserved in order to provide a signalized intersection, if ever required.</p>	

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>Redesign the tentative map to provide secondary or emergency vehicle access to all cul-de-sacs as required by the Lathrop-Manteca Fire District.</p> <p>For Buildout (2025), the City shall require full onsite circulation environmental analysis for all subsequent tentative maps.</p>	
<p>4.4-s: Onsite Pedestrian Circulation (Base Case Plus Project). The project's Phase 1a, Phase 1 and Buildout pedestrian circulation plan proposes sidewalks along both sides of all internal streets, with the exception of all single loaded stub streets (where a sidewalk on one side would be provided), and all alleys (where no sidewalks would be provided). Pedestrian/bicycle trails would also be provided along some levees and adjacent to some portions of internal waterways. The overall pedestrian circulation plan appears adequate with one possible exception. The 8- to 10-foot-wide trails are widths typically provided for bike riders only. In locations with moderate to high pedestrian volumes, there could be conflicts between pedestrians and bike riders.</p>	PS	<p>For Phase 1 (2015), the City of Lathrop shall ensure that the project applicant revise the Phase 1 tentative map to incorporate the following changes: Reserve right-of-way for a separate pedestrian trail at all locations along loop trails that are not within close proximity to sidewalks. For Buildout (2025), the City of Lathrop shall require full onsite pedestrian circulation environmental analysis for all subsequent tentative maps.</p>	LTS
<p>4.4-t: Onsite Bicycle Circulation (Base Case Plus Project). The project's proposed Phase 1a, Phase 1 and Buildout bicycle circulation plan proposes a mix of multi-use trails (Class I pedestrian/bikeways) and bicycle lanes (Class II bikeways). All four- and six-lane parkways and all two-lane major collector streets would have Class II signed and striped bike lanes. The Loop and Paseo trail system previously listed under pedestrian circulation would also serve bike riders as well as pedestrians. Thus, bike riders would also have off-street or signed and striped on-street facilities providing access to all parks, schools, commercial areas and employment centers within the development.</p>	PS	<p>For Phase 1 (2015), the City of Lathrop shall ensure that the project applicant revise the Phase 1 tentative map to include mitigation measures 4.4-r and 4.4-s in addition to the following measure: Provide informational signing along all bicycle routes indicating bicycle riders must obey all traffic laws, including giving the right-of-way to pedestrians and stopping at all stop signs and red signals. For Buildout (2025), the City shall also require full onsite bicycle circulation environmental analysis for all subsequent tentative maps.</p>	LTS
<p>4.4-u: Provisions for Public Transit (Year 2007, 2015 & 2025 Base Case + Project). Regarding Phase 1a (2007), Phase 1 (2015) and Buildout (2025), the project applicant has contacted the San Joaquin Regional Transit District (SJRTD) and has committed to work with</p>	LTS	No mitigation measures are necessary.	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>them to provide an internal circulation plan within the residential and commercial areas that would facilitate and encourage use of public transit. This would include providing areas for likely bus stops (to transit agency criteria) as well as bus stop shelters. The project's TDM program would also encourage employees to use local transit service. Bus transit service would be provided by SJRTD to the ACE commuter train station as well as to Stockton, Tracy and the other sections of Lathrop. While the project site is adjacent to the San Joaquin River and would contain several marinas, there are no definitive plans for public boat service. However, it would be assumed that some residents would use their private boats for local travel within the River Islands project as well as for regional recreation travel.</p>			
<p>4.4-v: Construction Traffic (Base Case Plus Project). For Phase 1a, the project applicant estimates there could be up to 300 construction workers accessing the project site on any given weekday. All but 75 workers are expected to access the site before 6:30 AM and all but 75 would exit the site before 4:30 PM. No construction truck traffic is expected before 8:00 AM or after 4:00 PM. Should these projections and commute times be followed, operational impacts would remain at a less-than-significant level. However, if these times are not followed, operational problems could arise. Also, construction traffic, in particular truck traffic, could degrade pavement condition along all roadways used for access. In addition, construction truck traffic (not staying within their lanes) would cause safety concerns on the sharp 90-degree curves of Stewart Road (during Phase 1a). For Phase 1 and Buildout, the access to the site via River Islands Parkway is adequate to support construction traffic.</p>	S	<p>For Phase 1a, the City of Lathrop shall ensure that the project applicant agrees to the following conditions regulating construction traffic.</p> <ul style="list-style-type: none"> ▶ All degradation of pavement condition along Stewart Road and Manthey Road due to River Islands construction traffic will be fully repaired to the satisfaction of the City of Lathrop. City staff and the project applicant shall jointly monitor the condition of each roadway every six months. ▶ No project construction traffic shall be allowed to use Paradise Road. ▶ No construction delivery truck traffic shall be allowed on the local roadway network before 8:00 AM or after 4:30 PM. ▶ No construction worker traffic shall be allowed on the local roadway network between 6:30 and 8:00 AM and between 4:30 and 6:00 PM. <p>As alternative mitigation to the impact along Stewart Road, the project proponents are proposing to have construction traffic enter the site via Manthey Road and the Paradise Cut levee road</p>	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		via an existing private crossing of the UPRR tracks (formerly SPRR). Due to the inadequate width of the levee to allow two opposing lanes of traffic, the levee would be used to allow west bound construction traffic onto the site, and a new temporary road would be constructed at the base of the levee to allow east bound construction traffic to exit the site. The levee would be widened at the existing rail crossing and the two directions of travel would be returned to the same grade to cross the railroad tracks side by side. The existing private at-grade railroad crossing would be used only for construction traffic during daylight hours. Use of this private railroad crossing would be subject to review and approval by UPRR and the PUC. This segregation of construction traffic would completely mitigate the effects of construction traffic along Stewart Road.	
4.5 AIR QUALITY			
<p>4.5-a: Increases in Regional Criteria Pollutants during Construction. Construction activities associated with the proposed project would result in the generation of nitrogen oxides (NO_x), reactive organic gases (ROG), and particulates (PM₁₀) emissions in addition to the potential airborne entrainment of asbestos associated with demolition of existing structures.</p>	S	<p>The SJVAPCD emphasizes implementation of effective and comprehensive control measures rather than requiring a detailed quantification of construction emissions. The SJVAPCD requires that all feasible control measures (dependent on the size of the construction area and the nature of the construction operations) shall be incorporated and implemented.</p> <p>Based on available information, it appears that the application of standard construction mitigation measures for the control of fugitive dust (i.e., the application of water or soil stabilizers) are effective methods of reducing dust-related impacts on agricultural crops.</p> <p>In accordance with SJVAPCD guidelines (SJVAPCD 1998), the following mitigation, which includes SJVAPCD Basic, Enhanced, and Additional Control Measures, shall be</p>	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>incorporated and implemented. In addition to the mitigation measures identified below, construction of the proposed project is required to comply with applicable SJVAPCD rules and regulations, including the requirement of a California Occupational Safety and Health Administration-qualified asbestos survey before demolition.</p> <ul style="list-style-type: none"> ▶ All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, or vegetative ground cover. ▶ All onsite unpaved construction roads and offsite unpaved construction access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant. ▶ All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking. ▶ During demolition of buildings all exterior surfaces of the building shall be wetted. ▶ When materials are transported offsite, all material shall be covered, effectively wetted to limit visible dust emissions, or at least 6 inches of freeboard space from the top of the container shall be maintained. ▶ All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at least once every 24 hours when operations are occurring. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.) ▶ Following the addition of materials to, or the removal of 	

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>materials from, the surfaces of outdoor storage piles, piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.</p> <ul style="list-style-type: none"> ▶ Onsite vehicle speeds on unpaved roads shall be limited to 15 mph. ▶ Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from adjacent project areas with a slope greater than 1 percent. ▶ Wheel washers shall be installed for all exiting trucks and equipment, or wheels shall be washed to remove accumulated dirt prior to leaving the site. ▶ Excavation and grading activities shall be suspended when winds exceed 20 mph. ▶ The overall area subject to excavation and grading at any one time shall be limited to the fullest extent possible. ▶ Onsite equipment shall be maintained and properly tuned in accordance with manufacturers' specifications. ▶ When not in use, onsite equipment shall not be left idling. 	
<p>4.5-b: Increases in Odorous Emissions. Odors associated with agricultural processes would result in less-than-significant impacts given the City's Right-to-Farm Ordinance and required buffers between agriculture and development. The City's industrial and wastewater facilities have not received odor complaints from nearby residents.</p>	LTS	No mitigation measures are necessary.	LTS
<p>4.5-c: Increases in Stationary Source Toxic Air Contaminants (TAC). Development associated with the proposed project would include sensitive receptors (e.g., residences, schools) and facilities that might emit TACs (e.g., manufacturing in the Employment Center). Onsite and offsite facilities that may emit TACs would be required to comply with established emission standards through the SJVAPCD permit process.</p>	LTS	No mitigation measures are necessary.	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>4.5-d: Increases in Mobile Source Toxic Air Contaminants. Diesel PM emissions from diesel-fueled delivery trucks associated with development of commercial- and industrial-related land uses may exceed health risk standards at nearby sensitive receptors.</p>	PS	<p>Implementation of the proposed project would result in a potentially significant increase in mobile source TACs, associated primarily with diesel trucks generated by commercial and industrial-related land uses. Mobile source TACs are a relatively new concern for the ARB, so specific guidelines and practices regarding assessing impacts and providing mitigation are not available. It is also unclear what effects new ARB diesel engine emission standards and diesel particulate matter regulations would have on the level of impact and the necessity for, or type of, mitigation. Therefore, the specific conditions of mobile source TAC impacts cannot be determined at this time. The only available mitigation of completely separating emission sources (diesel vehicles) from all sensitive receptors is not feasible. Therefore, no mitigation is available for Impact 4.5-d to reduce the impact to a less-than-significant level. Thus, implementing the proposed project would result in a significant and unavoidable adverse impact with respect to mobile source TACs.</p>	SU
<p>4.5-e: Increases in Local Mobile Source CO Concentrations. Implementation of the proposed project would result in the generation of CO at nearby intersections from increased vehicular traffic on the local transportation network. However, the proposed project would not contribute to CO concentrations that exceed CAAQS of 9.0 ppm for 8 hours or 20 ppm for 1 hour. Therefore</p>	LTS	No mitigation measures are necessary.	LTS
<p>4.5-f: Increases in Long-Term Regional Emissions. Implementation of the proposed project would result in long-term regional emissions, primarily associated with mobile sources, that would exceed the SJVAPCD's recommended significance threshold of 10 tons per year for ROG and NOx.</p>	S	<p>The project applicant shall implement the following mitigation measures, where applicable and feasible, as recommended in the SJVAPCD Guide for Assessing and Mitigating Air Quality Impacts (SJVAPCD 1998). It should be noted that many of these measures are already included in the proposed project design; however, they are repeated here to allow a complete listing of the SJVAPCD guidelines.</p>	SU

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> ▶ Provide transit enhancing infrastructure that includes transit shelters, benches, street lightening, route signs and displays, and/or bus turnouts/bulbs. ▶ Provide park and ride lots and/or satellite telecommuting centers. ▶ Provide pedestrian enhancing infrastructure that includes sidewalks and pedestrian paths, direct pedestrian connections, street trees to shade sidewalks, pedestrian safety designs/infrastructure, street furniture and artwork, street lightening, and/or pedestrian signalization and signs. ▶ Provide bicycle enhancing infrastructure that includes bikeways/paths connecting to a bikeway system, secure bicycle parking, and/or employee lockers and showers. ▶ Use solar, low-emissions, central, or tankless water heaters (residential and commercial), increase wall and attic insulation beyond Title 24 requirements (residential and commercial), orient buildings to take advantage of solar heating and natural cooling and use passive solar designs (residential, commercial, and industrial), replace wood-burning stoves and fireplaces with gas-fired fireplaces or inserts. 	
<p>4.5-g: Consistency with Air Quality Plans. Predicted increases in regional emissions would be consistent with the emissions inventories used for air quality planning purposes.</p>	LTS	No mitigation measures are necessary.	LTS
<p>4.6 NOISE</p>			
<p>4.6-a: Increases in Short-Term Construction-Generated Noise. Depending on the activities being performed, as well as the duration and hours during which activities occur, construction-generated noise</p>	S	Per the City of Lathrop Noise Ordinance, construction activities in, or within 500 feet of a residential zone (i.e., an area containing occupied residences) shall be prohibited between 10	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>levels at nearby residences could violate City of Lathrop Noise Ordinance standards. Activities occurring during the more noise-sensitive evening and nighttime hours could result in increased levels of annoyance and sleep disruption to occupants of nearby residences.</p>		<p>p.m. and 7 a.m. Sunday through Thursday and between 11 p.m. and 9 a.m. on Fridays, Saturdays, and legal holidays.</p> <p>In addition, all construction vehicles or equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and acoustical shields or shrouds, in accordance with manufacturers' recommendations. Construction equipment and truck routes shall be arranged to minimize travel adjacent to occupied residences. Stationary construction equipment and staging areas shall be located as far as possible from sensitive receptors, and temporary acoustic barriers may be installed around stationary equipment if necessary.</p>	
<p>4.6-b: Stationary Source Noise Generated by Onsite Land Uses. Increases in stationary source noise associated with the proposed project land uses could potentially exceed the City's maximum allowable noise standards.</p>	S	<p>As individual facilities, subdivisions, and other project elements are permitted by the City, the City will evaluate the element for compliance with the City's Noise Ordinance and noise policies in the General Plan. Where individual project elements do not clearly comply with interior noise standards included in these guidelines, mitigation measures shall be required to reduce projected interior and exterior noise levels to within acceptable levels.</p> <p>Mitigation measures include, but are not limited to, the following:</p> <ul style="list-style-type: none"> ▶ Dual-pane, noise-rated windows, mechanical air systems, exterior wall insulation, and other noise-reducing building materials shall be used. ▶ Mechanical equipment (e.g., air conditioning and ventilation systems) and area source operations (e.g., loading docks, parking lots, recreational use areas) shall be located at the furthest distance from and/or be shielded from nearby existing and future noise-sensitive land uses. 	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>In addition, the following measures will apply to noise-generating activities associated with the golf course.</p> <ul style="list-style-type: none"> ▶ Onsite landscape maintenance equipment shall be equipped with properly operating exhaust mufflers and engine shrouds, in accordance with manufacturers' specifications. ▶ For maintenance areas located within 500 feet of noise-sensitive land uses, the operation of onsite landscape maintenance equipment shall be limited to the least noise-sensitive periods of the day, between the hours of 7 a.m. and 7 p.m. ▶ Areas of the golf course that would require frequent turf maintenance (e.g., fairways, tees) shall be located at a minimum distance of 100 feet from the property line of nearby existing residences. 	
<p>4.6-c: Increases in Existing Traffic Noise Levels. Implementation of the proposed project would not result in a noticeable increase in ambient noise levels (i.e., 3 dBA or greater) at nearby existing noise-sensitive land uses as a result of increases in traffic noise levels.</p>	LTS	No mitigation measures are necessary.	LTS
<p>4.6-d: Compatibility of the Proposed Land Uses with Projected onsite Noise Levels. Predicted noise levels at some noise-sensitive receptors associated with the proposed project would exceed the City's "normally acceptable" land use compatibility noise standards.</p>	S	<p>As individual facilities, subdivisions, and other project elements are permitted by the City, the City will evaluate the element for compliance with the City's Noise Ordinance and noise policies in the General Plan. Where individual project elements do not clearly comply with interior noise standards included in these guidelines, mitigation measures such as use of dual-pane windows, mechanical air systems, exterior wall insulation, and other noise-reducing building materials and methods shall be required as appropriate to reduce interior noise exposure to the "normally acceptable" levels identified by the City. Where individual project elements do not clearly comply with exterior noise standards included in the City guidelines, mitigation</p>	LTS for some impacts; SU for others

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>measures such as use of sound walls, vegetative screening, buildings for screening, and setbacks between noise sources and receptors, shall be implemented as appropriate to minimize exterior noise levels. Where there is a question regarding premitigation or postmitigation noise levels in a particular area, site-specific noise studies may be conducted to determine compliance/noncompliance with City guidelines.</p> <p>Title 24 of the California Code of Regulations requires the preparation of an acoustical analysis for multifamily residences that demonstrates how interior noise levels will achieve a 45-dBA CNEL/L_{dn}, where the exterior noise levels exceed 60-dBA CNEL/L_{dn}. As a result, a Title 24 analysis shall be prepared as part of the final design of any proposed multifamily residential dwellings. To the extent necessary, noise control measures shall be designed according to the type of building construction and specified sound rating for each building element to achieve an interior noise level of 45-dBA CNEL/L_{dn}.</p>	
4.7 GEOLOGY, SOILS, AND MINERAL RESOURCES			
4.7-a: Construction-Related Erosion. Construction activities during project implementation would involve extensive excavations, fills, and movement and stockpiling of earth, which could expose soils to erosion and the loss of topsoil.	LTS	No mitigation measures are necessary.	LTS
4.7-b: Seismic Hazards (Ground Shaking). Ground shaking on the project site could expose people or structures to substantial risk of loss, injury, or death.	S	Project facilities shall be designed for maximum horizontal ground surface accelerations of at least 0.23 g.	LTS
4.7-c: Seismic Hazards (Liquefaction). Earthquake-induced liquefaction at the project site could result in substantial risk of structural damage and could expose residents, workers, and visitors on the project site to substantial risk of bodily injury.	S	A design-level geotechnical study shall be completed for each project development (e.g., housing subdivision, Employment Center subdivision, school, levee segment) before a grading permit is issued, focusing on the liquefaction potential in the area	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		and identifying appropriate means to minimize/avoid damage from liquefaction.	
<p>4.7-d: Seismic Hazards (Ground Lurching and Soil Settlement). Ground lurching and settlement induced by dynamic densification during a seismic event at the project site could result in risk of structural damage and could expose residents, workers, and visitors on the project site to risk of bodily injury. However, these risks are considered minor because of onsite soil conditions.</p>	LTS	No mitigation measures are necessary.	LTS
<p>4.7-e: Seismic Hazards (Lateral Spreading and Landslide). Seismically induced lateral spreading and landslide could result in levee failures at the project site, exposing residents, workers, and visitors to the risk of flooding, structural damage, and body injury.</p>	S	A design-level geotechnical study shall be completed for each project development (e.g., housing subdivision, Employment Center subdivision, school, levee segment) before a grading permit is issued. The geotechnical studies for levees and levee improvements shall include additional site explorations and a laboratory testing program to more accurately determine subsurface stratigraphy and soil strength characteristics for slope stability analyses. Final levee designs shall be analyzed for various stability conditions using the strength parameters developed from the additional exploration and testing. Levee designs shall address issues such as long-term slope stability for static and seismic conditions, lateral spreading, and potential effects of seepage on levee stability.	LST
<p>4.7-f: Shrink-Swell Potential. The shrinking and swelling of soils could result in damage to structures, underground utilities, and other facilities on the project site during the operation of the proposed development.</p>	S	A design-level geotechnical study shall be completed for each project development (e.g., housing subdivision, Employment Center subdivision, school, levee segment) before a grading permit is issued. The study shall specifically address whether expansive soils are present in the development area and include measures to address these soils where they occur.	LTS
<p>4.7-g: Corrosive Soils. The moderate corrosiveness of onsite soils could cause damage to buried concrete slabs and foundations and buried metal pipes during the operation of the River Islands project.</p>	S	A design-level geotechnical study shall be completed for each project development (e.g., housing subdivision, Employment Center subdivision, school, levee segment) before a grading	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		permit is issued. The study shall specifically address corrosion potential and include measures to address corrosive soils where damage to underground facilities may occur.	
<p>4.7-h: Mineral Resources. The development of permanent structures on land classified MRZ-2 would result in the loss of access to potentially significant sand deposits classified by the CDMG. However, the loss of mineable surface area (5 acres) is small relative to the available MRZ-2 lands in the area (roughly 1,100 acres).</p>	LTS	No mitigation measures are necessary.	LTS
<p>4.8 HYDROLOGY AND WATER QUALITY</p>			
<p>4.8-a: RID Area Construction Sediment and Water Quality Contamination. Drainage and water quality impacts could result from construction activities in the RID Area.</p>	PS	<p>General construction activities within the RID Area could impair existing water bodies. Two key plans will be prepared and implemented: a Stormwater Pollution Prevention Plan (SWPPP) (including an erosion control and construction plan) and an environmental monitoring and mitigation compliance and reporting program. Development and implementation of both plans would be coordinated. The City shall ensure the following measures are completed:</p> <ul style="list-style-type: none"> ▶ Prepare and implement a SWPPP prior to any construction activities that meets the requirements for the California General Permit for construction projects regulated under the NPDES and includes specific BMPs to avoid and minimize impacts on water quality during construction activities. The goals of the SWPPP will generally be to protect water quality; establish procedures to minimize accelerated soil erosion; minimize accelerated sedimentation into the internal drainage system, the San Joaquin River, Old River, and Paradise Cut; minimize non-stormwater runoff; and ensure long-term reestablishment of preconstruction site conditions where practical. 	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>Also addressed in the SWPPP will be identification construction sites, activities, and schedules; temporary storage and borrow areas; construction materials handling and disposal; dewatering and treatment and disposal of groundwater removed from excavations; discharges; equipment washing; inspection and maintenance measures; final stabilization and clean up; and appropriate use of seeding, mulching, erosion control blankets, and other erosion control measures.</p> <p>The project proponent would also obtain all necessary permits and meet all requirements specified by local, state, or federal agencies in whole or in part responsible for water quality protection, including, but not limited to:</p> <p>Spills from construction equipment could release contaminants to waterways. To avoid contamination, the project applicant shall comply with the measures mentioned above, at a minimum, and implement additional best management practices as defined in section 4.8.</p>	
<p>4.8-b: Interior Lake Water Quality. Project operations in the RID Area could adversely affect water quality in the interior lake. Because water from the interior lake would come into contact with groundwater and would be pumped into Paradise Cut, these waters also could be adversely affected. However, multiple best management practices (BMPs) are proposed that would protect and manage water quality in the interior lake.</p>	LTS	No mitigation measures are necessary.	LTS
<p>4.8-c: Earth Moving in or Adjacent to Water Bodies. Earth moving associated with levee breaching and back bay development along the surrounding waterways could result in streambed and riverbank disturbance, sediment input, and contaminant input, thereby affecting water quality.</p>	S	Levee breaching and earth moving adjacent to the San Joaquin River, Old River, and Paradise Cut could increase short-term turbidity and release small quantities of construction-related contaminants within the local disturbance area. To reduce turbidity impacts, the project proponent shall, to the extent	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		possible: <ul style="list-style-type: none"> ▶ Perform breaching operations and all other in-river work, or work immediately adjacent to the rivers, during low tide and during low flows. ▶ Work in Paradise Cut only when flood waters from the San Joaquin River are not present in the Cut and there is no immediate threat of flood waters overtopping the Paradise Weir. ▶ Perform all interior dredging, grading, and construction of in-water facilities (e.g. dock installation) in the back bays and the widened Paradise Cut channel before breaching levees to the adjacent water body. Soils which will be inundated after breaching will be stabilized to the extent possible to minimize erosion and sediment backwash as these constructed water bodies initially fill. ▶ Adhere to all local, state, and federal regulations regarding turbidity reduction measures applicable to this activity, including developing and implementing a SWPPP. ▶ Adhere to applicable requirements in Mitigation Measure 4.8-a. 	
4.8-d: In-Water Project Features. Constructing bridges and docks on the San Joaquin River, Old River, and/or Paradise Cut could cause sedimentation and water quality impacts.	S	Implementation of Mitigation Measures 4.8-a and 4.8-c would reduce potential sedimentation/water quality impacts associated with constructing bridges and docks on the San Joaquin River, Old River, and/or Paradise Cut to less-than-significant levels.	LTS
4.8-e: Utility Crossings. The proposed directional boring of a natural gas line under the San Joaquin River could result in short-term degradation of water quality from accidental seepage of drilling slurry into the river.	PS	Based on the assumption that a frac-out may occur during directional drilling under the San Joaquin River, the following detection, containment, and prevention procedures will be implemented by the project applicant to mitigate the potential effects of a frac-out:	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> ▶ Provide an environmental monitor during all boring operations. ▶ Before a drilling operation begins, a reconnaissance survey will be made by the drill crew chief and environmental monitor to identify conditions that may indicate a greater likelihood for frac-outs, and site features that may be affected should a frac-out occur (e.g. San Joaquin River, levees, irrigation canals). ▶ If substrates in the bore area are considered particularly sensitive to frac-outs, boring measures will be implemented that reduce the potential for a frac-out (e.g., using extra low pressures and nontoxic leak sealants). ▶ In the event that a frac-out is detected, drilling operations will cease immediately and the environmental monitor will be notified. ▶ The environmental monitor will immediately notify by telephone the appropriate office of the CDFG, RWQCB, and other appropriate permitting agencies of any frac-out that may affect areas under their jurisdictions. ▶ The contractor will also follow relevant measures contained in Mitigation Measures 4.8-a and 4.8-c as appropriate to avoid sediment entering the San Joaquin River at bore hole entrance and exit points. 	
<p>4.8-f: Diversion Effects on Old River Hydrology. Under the proposed project less water would be pumped from Old River into the RID Area, and diversions would be shifted to a period when demand from agricultural users is less.</p>	B	No mitigation measures are necessary.	B
<p>4.8-g: Diversion Effects on Old River Water Quality. Under the proposed project less water would be pumped from Old River and diversions would be shifted primarily to October and November when local agricultural water demands and water quality concerns are</p>	B	No mitigation measures are necessary.	B

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
reduced.			
<p>4.8-h: Water Discharges to the Delta (Hydrology). Less water would be discharged into Paradise Cut under the proposed project than under existing conditions; potentially altering the hydrology of the Paradise Cut channel. However, the proposed widening of the Paradise Cut channel would compensate for any changes by allowing greater tidal circulation.</p>	LTS	No mitigation measures are necessary.	LTS
<p>4.8-i: Water Discharges to the Delta (Water Quality). The quality of the water discharged into Paradise Cut from the internal project lake would generally be improved under the proposed project relative to existing conditions. However, some individual water quality parameters would be in higher concentrations in post project discharges. All post project contaminant concentrations that would be increased fall within regulatory water quality standards.</p>	LTS/B	No mitigation measures are necessary.	LTS/B
<p>4.8-j: Maintenance Dredging of Back Bays. Maintenance dredging of back bays may release sediments and increase turbidity, adversely affecting water quality in the San Joaquin and Old Rivers.</p>	S	<p>To reduce turbidity impacts, the project proponent shall, to the extent possible:</p> <ul style="list-style-type: none"> ▶ Perform dredging during low tide and during low flows. ▶ Use suction dredging to minimize sediment releases. ▶ Adhere to all local, state, and federal regulations regarding turbidity reduction measures and dredged material disposal applicable to this activity, including developing and implementing a SWPPP. ▶ Adhere to Mitigation Measure 4.8-a. 	LTS
<p>4.8-k: Increased Boat Traffic. Development in the RID Area and associated installation of docks on the San Joaquin River, Old River, and Paradise Cut would increase boat traffic in these waterways. Increased erosion from boat wakes and fuel spills from the use and storage of these boats may adversely affect water quality in the surrounding waterways.</p>	S	<p>The project applicant would limit boat speeds by establishing “no-wake zones” with maximum 5-mph speeds in all back bays and in locations where docks are installed along the San Joaquin River, Old River, and Paradise Cut. In addition, the project applicant shall implement the following mitigation measures to further decrease wave action on levees surrounding the project</p>	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		area and minimize fuel spills and associated boat-related discharges:	
<p>4.8-l: Flood Protection for the RID Area. The RID Area is currently completely within the 1-in-100-AEP floodplain, but would be removed from the floodplain by increasing Paradise Cut flow volumes and capacity, strengthening levees, creating high-ground corridors, and constructing back bays.</p>	B	No mitigation measures are necessary.	B
<p>4.8-m: Surrounding Flood Stage Elevations. Providing 1-in-200-AEP level flood protection to the RID Area could result in increases to flood stage elevations in the surrounding area during severe flood events. However, increases would be minor and highly infrequent.</p>	LTS	No mitigation measures are necessary.	LTS
<p>4.8-n: Nonflood Hydrology in Surrounding Waterways. Although the project results in minor changes to hydrologic conditions in the surrounding waterways, nonflood hydrology is not substantially affected.</p>	LTS	No mitigation measures are necessary.	LTS
<p>4.8-o: Groundwater Quality During Construction. During project construction, excavation activities could intersect shallow groundwater and result in sediments or contaminants entering the groundwater.</p>	PS	The SWPPP developed and implemented as part of Mitigation Measure 4.8-a must specifically include measures to prevent/minimize sediment and contaminant releases into groundwater during excavations and methods to clean up releases if they do occur. These may include using temporary berms or dikes to isolate portions of central lake construction activities; using vacuum trucks to capture contaminant releases; and maintaining floating booms, absorbent pads, and other containment and cleanup materials onsite to allow an immediate response to contaminant releases if they occur.	LTS
<p>4.8-p: Groundwater Quality and Supply During Project Operation. During project operation groundwater quality could be adversely affected through contaminants entering the Central Lake or the Paradise Cut Canal. Use of municipal water originating from City</p>	LTS	No mitigation measures are necessary.	LTS

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SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
wells could affect groundwater supplies and quality if overdraft conditions or increases in total dissolved solids (TDS) occurred. However, available information indicates that adverse effects on groundwater quality and supply would not occur.			
4.8-q: Water Supplies to Other Users. Project operations could directly or indirectly affect water supplies to other water users. However, in most instances the proposed project would have a beneficial effect on available water supplies.	LTS	No mitigation measures are necessary.	LTS
4.9 HAZARDOUS MATERIALS AND PUBLIC HEALTH			
4.9-a: Hazardous Materials. During all phases, the project would involve the storage, use, and transport of hazardous materials at the project site during construction activities. In addition, because the project proposes commercial uses, it is likely that some facilities (e.g., dry cleaners and gas stations) could use hazardous materials during operation. However, use of hazardous materials at the site would be in compliance with local, state, and federal regulations. Therefore, impacts related to creation of significant hazards to the public through routine transport, storage, use, disposal, and risk of upset would not occur.	LTS	No mitigation measures are necessary.	LTS
4.9-b: Exposure of Construction Workers, Residents, and Others to Hazardous Materials. Past agricultural and farming operations in the RID Area could have resulted in contamination of soil and/or groundwater in some locations. Demolition, excavation, and construction activities in the RID Area could result in the exposure of construction workers to hazardous materials, including asbestos, petroleum hydrocarbons, pesticides, herbicides, and fertilizers. In addition, if contaminated sites in the RID Area are not cleaned before occupation or use of the site, then residents and others could be exposed to hazardous materials.	S	Before demolition of any structures associated with past and current farming operations (e.g., buildings, ASTs, USTs), the project applicant shall investigate the extent to which soil and/or groundwater has been contaminated from these operations. This investigation would include, as necessary, analysis of soil and/or groundwater samples taken at or near the potential contamination sites. If the results indicate that contamination exists at levels above regulatory action standards, then the SJCEHD shall be notified and the site shall be remediated in accordance with recommendations made by SJCEHD; RWQCB; DTSC; or other appropriate federal, state, or local regulatory agencies.	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>4.9-c: Potential Public Health Impacts Associated with Recycled Water. The proposed project includes the use of recycled water to irrigate nonresidential landscaping in the project site. The recycled water would comply with state requirements for unrestricted use. Because recycled water would comply with state health requirements and because irrigation of residential (private) landscaping is not proposed, conflicts related to public health are not anticipated.</p>	LTS	No mitigation measures are necessary.	LTS
4.10 PUBLIC SERVICES			
<p>4.10-a: Obstruction of Roadways during Construction. Implementation of the proposed project could obstruct roadways in the vicinity during construction, which could obstruct or slow emergency vehicles attempting to access the area.</p>	S	Per City requirements, the applicant/contractor shall prepare and implement traffic control plans for construction activities that may affect road rights-of-way. The traffic control plans must follow California Department of Transportation standards and be signed by a professional engineer.	LTS
<p>4.10-b: Increased Demand for Fire Protection Facilities and Services. Development of the proposed project would result in an increase in demand for fire protection facilities and services. If planned fire stations are not constructed, existing fire protection facilities could not adequately serve the project site.</p>	S	The City shall not authorize the occupancy of any structures in Phase 1a of the proposed project until the proposed interim fire station is in service. As development proceeds through Phase 1 and Phase 2 of the proposed project, the City shall authorize occupancy of new structures only if confirmation of 3- to 4-minute emergency response times to these structures can be provided using LMFPD methodologies. At some currently undetermined point during Phase 1, the new permanent fire station (tentatively planned in the Employment Center) would need to be constructed and brought into service to meet the response time requirement. Similarly, at some point during Phase 2, one or more additional fire stations would need to be constructed to meet the response time requirements. The LMFPD would build and equip necessary interim and permanent fire stations, as needed, on land dedicated by the project applicant. The applicant shall pay to the City all applicable fire service fees and assessments required to pay for its share of fire district facilities and services required to serve the River Islands	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>project.</p> <p>Construction of structures greater than 50 feet in height or four stories will not be permitted by the City until the LMFPD possesses appropriate equipment (e.g., aerial trucks) to provide fire suppression and emergency services to the upper stories of these buildings. The applicant shall pay to the City all applicable fire service fees and assessments required to pay for its fair share of this equipment.</p>	
<p>4.10-c: Increased Demand for Water-Related Emergency Services and Facilities. Because of the heavy integration of water features into the design of the proposed project, demand for water-related emergency services and facilities would increase as a result of project implementation. The LMFPD would require new equipment to address this demand.</p>	S	<p>The project applicant and the LMFPD have developed a tentative agreement regarding the type, cost, schedule, and purchase conditions for a fire/rescue boat to be operated by the LMFPD to address water-related emergency services. The City shall not authorize the occupancy of any project structures adjacent to the San Joaquin River, Old River, Paradise Cut, or the internal project lake until this agreement has been finalized.</p>	LTS
<p>4.10-d: Increased Demand for Fire Flow. The proposed project would include the development of residential, commercial, school, and other uses that would require adequate available water flow for fire suppression. Lack of adequate fire flow would substantially impede the ability of the LMFPD to provide effective fire suppression service at the project site.</p>	S	<p>The City shall not authorize the occupancy of any structures until the applicant has confirmed provision of adequate minimum fire flows as required by the LMFPD and the California Fire Code.</p>	LTS
<p>4.10-e: Increased Demand for Police Protection Facilities and Services. The development of the proposed project would increase the demand for police protection facilities and services and result in the need for additional staff members and equipment to maintain an adequate level of service.</p>	S	<p>The project applicant shall pay to the City the startup costs incurred in the hiring and training for each of the new police officer positions needed to serve the project (four for Phase 1a, an additional 13 officers for Phase 1, and 27 more officers for Phase 2 [total of 44], assuming the existing 1.4-officer-to-1,000-resident ratio). This fee shall be incurred once per position (i.e., it shall not be used to train turnover staff). In addition, the following equipment costs shall be paid for by the applicant:</p>	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> ▶ standard safety equipment for each officer, including sidearm; belt, holster, etc.; body armor; mobile radio, etc.; and ▶ a fully equipped patrol vehicle for every two officers, including radio, siren, roof lighting, Opticom mobile strobe, mobile computer terminal, and vehicle video recorder. <p>The payment of the above startup fees and equipment costs shall be phased to coincide with the need for new officers generated by project development. Each time sufficient dwelling units are developed to generate 714 residents, the fee equivalent for one officer shall be paid to the City (based on a 1.4-officer-to-1,000-resident ratio). The resident threshold may be adjusted if City policy results in a different officer-to-resident ratio. Resident generation rates to be used for this calculation are:</p> <ul style="list-style-type: none"> ▶ single family 3.2 persons per dwelling unit ▶ multifamily 2.5 persons per dwelling unit ▶ active adult 1.5 persons per dwelling unit <p>As police officers and support staff members are hired to meet demand associated with the proposed project, the planned Government Center, or similar or interim facilities, would be completed before Police Department staff exceed available space in the 7th Street building.</p> <p>The project applicant shall also ensure the use of 3M Addressable Opticom Traffic Control Pre-emption devices and detectors/reflectors (or equivalent based on Police Department standards) in all traffic lights for which the project is responsible and the City has jurisdiction.</p>	

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>4.10-f: Increased Demand for Animal Control Facilities and Services. Increases in human populations as a result of project development would result in a corresponding increase in demand for animal control facilities and services. New facilities and staff members would be required to maintain the existing level of service in the City.</p>	S	<p>The project applicant and City of Lathrop shall negotiate an animal control services agreement element. The agreement shall be designed to ensure that resources are available for animal control facilities and staff to expand to meet demand associated with the proposed project. Credit may be given to the project applicant if a portion of the River Islands Animal Campus is dedicated to use by the City's Animal Control Division.</p>	LTS
<p>4.10-g: Increased Demand for Public School Facilities and Services. Implementation of the proposed project would increase demand for elementary schools (K–8) within the BESD and for high schools in the TUSD. Although the project includes a proposal for onsite schools, proposed facilities may not be sufficient to meet demand during Phase 1a and Phase 1. In addition, a schedule and funding mechanism for construction of these schools has not been confirmed.</p>	S	<p>The City shall not allow occupancy of any project residences until a mitigation agreement has been executed between the project applicant and the BESD and TUSD regarding the provision of school services for the proposed project or payment of the state-mandated school impact fee City.</p> <p>The BESD is considering becoming a unified school district and providing high school facilities to grade 9–12 students. If this occurs, and the BESD provides all K–12 school services to the project site, then the mitigation agreement needs to be executed only with the BESD and not with the TUSD.</p>	LTS
<p>4.10-h: Increased Generation of Solid Waste. The proposed project would substantially increase solid waste generation. However, Foothill Sanitary Landfill, which would receive solid waste from the project, has ample long-term available capacity.</p>	LTS	No mitigation measures are necessary.	LTS
4.11 PUBLIC UTILITIES			
<p>4.11-a: Demand for Potable Water. The proposed project would create demand for potable water that could not be met by existing City water production facilities (i.e., wells).</p>	S	<p>No portion of the proposed project shall be occupied until sufficient multi-drought year water supply is available to serve that portion of the project site being developed and water infrastructure (e.g., pipelines) to serve the area is complete.</p>	LTS
<p>4.11-b: Environmental Impacts Associated with the Development of New City Wells. According to the Master Plan EIR, the</p>	S	<p>The Water, Wastewater and Reclaimed Water Master Plan EIR contains measures to mitigate these impacts.</p>	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
construction and operation of planned new City wells (Wells #21-23 and Emergency Wells #1 and #2) could contribute to significant geotechnical, groundwater, flooding, noise, farmland, aesthetics/views, terrestrial biology, and cultural resources impacts.			
4.11-c: Demand for Wastewater Treatment Capacity during Phase 1a and Phase 1. Implementation of Phase 1a and Phase 1 of the proposed project would create a demand for wastewater treatment that could not be met by existing City facilities. Development and operation of the WRP #1 Phase 1 Expansion Project would be required to provide the River Islands project with adequate treatment capacity during Phase 1a and Phase 1.	S	Occupancy of individual developments included in Phase 1a and Phase 1 shall not be permitted by the City until both adequate wastewater treatment capacity and tertiary treatment to Title 22 standards for unrestricted use are available at WRP #1 or WRP #3 to serve this development.	LTS
4.11-d: Demand for Wastewater Treatment Capacity for Phase 2. Inadequate wastewater treatment capacity currently exists to serve Phase 2 of the proposed project. Continued expansion of WRP #1 and/or development and operation of WRP #2 or WRP #3 would be required to provide the River Islands project with adequate treatment capacity at buildout.	S	Elements of Phase 2 project development that would generate demand for wastewater treatment capacity shall not commence until both adequate wastewater treatment capacity and tertiary treatment to Title 22 standards for unrestricted use are available to serve the particular development area. It is expected that the necessary treatment capacity would require additional expansion of WRP #1 and/or construction of WRP #2 or #3.	LTS
4.11-e: Environmental Impacts Associated with the Expansion of WRP-#1 and Construction of WRPs #2 and #3. According to the Master Plan EIR, the expansion of WRP #1, construction of WRPs #2 and #3, and the potential discharges of treated wastewater to the San Joaquin River during later expansion phases could contribute to significant geotechnical, groundwater, flooding, air, odor, noise, land use, aesthetics/views, terrestrial biology, cultural resources, and emergency response impacts.		These impacts would be reduced to less-than-significant levels with implementation of the mitigation measures identified in the Master Plan EIR, with the exception of odor impacts and cumulative surface water quality and fisheries impacts, which would be significant and unavoidable.	LTS/ Potentially SU (odors only)
4.11-f: Demand for Recycled Water Storage and Disposal Capacity during Phase 1a and Phase 1. The proposed project would increase the demand for recycled water storage and disposal areas. Adequate storage and disposal areas are available to accommodate the quantity of	LTS	No mitigation measures are necessary.	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
treated wastewater to be generated by the project during Phase 1a and 1.			
<p>4.11-g: Demand for Recycled Water Storage and Disposal Capacity for Phase 2. Implementation of Phase 2 of the proposed project would result in an incremental increase in project-generated recycled water requiring disposal. However, insufficient area would exist at the project site to dispose of this additional recycled water, and no offsite land disposal sites have been identified. There is not sufficient existing recycled water disposal capacity and there would not be sufficient capacity on the project site.</p>	S	<p>Elements of Phase 2 project development that would generate recycled water shall not commence until storage and disposal capacity is provided to address the incremental increase in recycled water generation associated with Phase 2 development. The additional disposal capacity may be provided through either land disposal or discharge to the San Joaquin River. If land disposal is selected, buildout shall not commence until:</p> <ul style="list-style-type: none"> ▶ sufficient acreage of storage ponds and spray fields is found for the disposal of the additional recycled water generated by the particular development area, ▶ infrastructure is developed to convey this additional recycled water to the storage and disposal areas, ▶ the storage ponds are lined, ▶ the application occurs at agronomic rates, and ▶ the off-site disposal system is operational. <p>If river disposal is selected, buildout shall not commence until river discharges of recycled water are permitted for expanded and/or new WRPs under the Master Plan.</p>	LTS
<p>4.11-h: Stormwater/Surface Runoff Management. The proposed project would generate substantial amounts of stormwater/surface runoff through the development of roughly 2,900 acres with land uses that create impervious surfaces. However, the project includes an extensive system of parks and paseos, created wetlands, and the central lake to manage, store, and clean stormwater runoff. This system is designed to provide onsite stormwater storage and discharge capability sufficient to protect the RID Area during a 1-in-100 Annual Exceedence Probability (AEP) event (i.e., 100-year flood event).</p>	LTS	No mitigation measures are necessary.	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>4.11-i: Demand for Electricity and Natural Gas at Buildout. The proposed project would generate an increase in the demand for electricity and natural gas. PG&E is able to provide electricity and natural gas to the project, because the increase in demand for electricity and natural gas would not be substantial in relation to the existing electricity and natural gas consumption in PG&E's service area, and because the proposed electricity and natural gas improvements would be sufficient to provide the project with electricity and natural gas.</p>	LTS	No mitigation measures are necessary.	LTS
4.12 RECREATION			
<p>4.12-a: Demand for Neighborhood and Community Parks. Residential development proposed for Phase 1a would require 12.8 acres of parkland to meet the General Plan standard of 5 acres of parkland (2 acres of neighborhood park and 3 acres of community park per 1,000 residents). Phase 1a development with a nontraditional school system would include 38.2 acres of parkland. The completion of Phase 1 would increase the demand to 62 acres, and the project would provide 98.4 acres by the completion of Phase 1. Completion of Phase 2 would increase the total demand to 153.3 acres, and the project with a nontraditional school system would provide 265.3 acres in total. As such, development of the project with a nontraditional school system would create parkland in excess of anticipated demand. Development of the project with a traditional school system would result in 272.9 or more acres of parkland, which would also exceed demand established by the General Plan standards. The proposed project therefore would be expected to alleviate the demand on existing neighborhood and community parks. No substantial physical deterioration of existing parkland would result.</p>	B	No mitigation measures are necessary.	LTS
<p>4.12-b: Reduced Recreational Boating Opportunities. The proposed project would construct numerous new docks along the San Joaquin River and Old River that would require establishment of new</p>	LTS	No mitigation measures are necessary.	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>areas with boat speed limits near the project site, thus limiting some recreational boating opportunities (e.g., water skiing). However, overall the proposed project would provide additional public access to boating facilities in the project vicinity and increase recreational opportunities.</p>			
<p>4.12-c: Consistency with Open Space Designation. The General Plan designates a network of landscaped open space corridors on the proposed project site. The project includes habitat restoration, parks, and landscaped parkways in most of these areas and expands the network in other locations on the project site (i.e., landscaped areas along the internal lakes and an extensive network of bicycle and pedestrian trails). As such, the project would exceed open space requirements in the General Plan, enhancing the availability of recreational opportunities in the project vicinity.</p>	B	No mitigation measures are necessary.	B
<p>4.13 AGRICULTURAL RESOURCES</p>			
<p>4.13-a: Conversion of Important Farmland. Implementation of the proposed project would result in the permanent conversion of approximately 4,115 gross acres and 3,620 net acres of Prime Farmland and Farmland of Statewide Importance, as designated by the NRCS FPP and CDC's Important Farmland Inventory System and Mapping and Monitoring Program.</p>	S	<p>The City of Lathrop would participate in the SJMSCP. Fees would be paid to the SJCOG on a per-acre basis for lost agricultural land during development of both Phase 1 and Phase 2 of the proposed project. The SJCOG uses these funds to purchase conservation easements on agricultural and habitat lands in the project vicinity (in the Central Index Zone identified in the SJMSCP). The preservation in perpetuity of agricultural lands through the SJMSCP, a portion of which would consist of Prime Farmland and Farmland of Statewide Importance, would ensure the continued protection of farmland in the project vicinity, partially offsetting project impacts. However, because easements are purchased for land exhibiting benefits to wildlife, including a combination of habitat, open space, and agricultural lands, the overall compensation provided by the fee contribution for the proposed project would result in less than a 1:1 ratio of compensation specifically for agricultural land. In addition, no</p>	SU

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		new farmland would be made available, and the productivity of existing farmland would not be improved as a result of SJMSCP implementation. Therefore, full compensation for losses of Important Farmland could not be achieved.	
<p>4.13-b: Williamson Act Contract Cancellations. Implementation of the River Islands project would result in the cancellation of Williamson Act contracts for approximately 415 acres for Phase 1a and an undetermined amount of acreage (no more than 1,355 acres) for the completion of Phase 1. The total acreage lost to the cancellation of Williamson Act contracts would be up to 1,770 acres.</p>	S	<p>Potential Williamson Act cancellations are limited to Phase 1a and Phase 1 of the River Islands project. The project applicant shall continue to allow/promote farming operations as long as possible on Phase 1a and Phase 1 as development proceeds. These actions would minimize the level of contract cancellations required.</p> <p>The River Islands at Lathrop project applicant would participate in the SJMSCP. Fees would be paid to the SJCOG on a per-acre basis for lost agricultural lands. The SJCOG uses these funds to purchase conservation easements on agricultural and habitat lands in the project vicinity (within the Central Zone identified in the SJMSCP). Participation in the SJMSCP would assist in compensating for Williamson Act contract cancellations by placing farmlands in conservation easements, requiring conservation of agricultural lands in perpetuity. These easements provide much more stringent and longer lasting protections than Williamson Act contracts.</p>	SU
<p>4.13-c: Adjacent Landowner/User Conflicts. Long-term impacts on adjacent offsite landowners and conflicts associated with noise, odor, and dust are expected to be minimal due the natural buffers of the Old River, San Joaquin River, and Paradise Cut.</p>	PS	<p>The following actions are consistent with those included in the WLSP EIR to address this impact. The project applicant would phase the development of agricultural lands in the RID Area (during both Phase 1 and Phase 2) to avoid the fracturing or fragmentation of continuing agricultural operations. As development occurs in the RID Area, fencing, walls, or other suitable barriers such as watercourses shall be established at the interface between development and adjacent agricultural lands. In addition, a buffer zone of at least 150 feet shall be provided</p>	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		between the edge of residential or commercial development and the adjacent agricultural land. The City shall include the buffer as a condition of development approval, with the buffer being maintained until the next phase of development over the adjacent agricultural land is approved. Growers cultivating lands near or adjacent to urban development in the RID and PCC Areas shall comply with all necessary federal, state, and local restrictions regarding buffers between pesticide/herbicide applications and sensitive areas, such as schools, residences, and parks. Required buffer distances may vary depending on the type of chemicals used and the method of application. Residents and other individuals purchasing property near agricultural lands shall be provided information on the types of conflicts that may occur and appropriate means to address these conflicts, consistent with the City of Lathrop's Right-to-Farm Ordinance.	
4.14 TERRESTRIAL BIOLOGY			
4.14-a: General Biological Resources. Implementation of the proposed project would result in development or conversion of approximately 3,925 acres of agricultural, ruderal, and developed areas that provide habitat for a limited number of common plant and wildlife species.	LTS	No mitigation measures are necessary.	LTS
4.14-b: Special-Status Plants. Loss and disturbance of aquatic and riparian habitats associated with project activities during all three phases could result in loss of special-status plants.	PS	The following is a summary and clarification of SJMSCP incidental take avoidance and minimization measures for special-status plants: ▶ Before project implementation, surveys for the special-status plants listed in Table 4.14-1 shall be conducted by a qualified botanist at the appropriate time of year when the target species would be in flower or otherwise clearly identifiable. Because all of the target special-status plants	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>are associated with wetland and riparian habitats, the survey can focus on these habitats.</p> <ul style="list-style-type: none"> ▶ If no special-status plants are found during focused surveys, the findings shall be documented in a letter report to the regulatory agencies, and no further mitigation will be required. ▶ If special-status plants are found, the following measures shall be implemented: <p>Sanford’s arrowhead, Delta button-celery, and Slough thistle: The SJMSCP requires complete avoidance for these species; therefore, potential impacts on these species could not be covered through participation in the plan. If these species are present in the project area and cannot be avoided, a separate consultation with the regulatory agencies would be required. This consultation shall determine appropriate mitigation measures for any populations affected by the project, such as creation of offsite populations through seed collection or transplanting, preserving and enhancing existing populations, or restoring or creating suitable habitat in sufficient quantities to compensate for the impact. All mitigation measures determined necessary during this consultation shall be implemented by the project proponent.</p> <p>Mason’s lilaeopsis, rose mallow, Suisun marsh aster and Delta tule pea: These species are considered widely distributed species by the SJMSCP, and dedication of conservation easements is the preferred option for mitigation. If these species are found in the project area and a conservation easement is not an option, payment of</p>	

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>SJMSCP development fees may be used to mitigate impacts on these species.</p> <p>Wright's trichocoronis: This species is considered a narrowly distributed species by the SJMSCP, and dedication of conservation easements is the preferred option of mitigation. If this species is found in the project area and the dedication of a conservation easement is not an option, the SJMSCP requires a consultation with the permitting agency representatives on the Technical Advisory Committee to determine the appropriate mitigation measures. These may include seed collection or other measures and would be determined on a population basis, taking into account the species type, relative health, and abundance. After the appropriate mitigation has been determined, it shall be implemented by the project proponent.</p>	
<p>4.14-c: Valley Elderberry Longhorn Beetle. Loss and disturbance of areas supporting natural vegetation during Phases 1 and 2 could result in loss of blue elderberry shrubs, which provide habitat for the valley elderberry longhorn beetle.</p>	S	<p>The following is a summary and clarification of SJMSCP incidental take avoidance and minimization measures for the valley elderberry longhorn beetle (VELB):</p> <ul style="list-style-type: none"> ▶ Before project construction, a survey for elderberry shrubs shall be conducted where elderberries could occur within 50 feet of construction areas, including the banks of the San Joaquin River, the PCIP Area and the PCC Area. ▶ For all shrubs that are to be retained on the project site, a setback of 20 feet from the dripline of each elderberry bush found during the survey shall be established. ▶ Brightly colored flags or fencing shall be used to demarcate the 20-foot setback area and shall be maintained until project construction in the vicinity is complete. 	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> ▶ For all shrubs without evidence of VELB exit holes that cannot be retained on the project site, all stems of 1 inch or greater in diameter at ground level shall be counted. Compensation for removal of these stems shall be provided in SJMSCP preserves as provided in SJMSCP Section 5.5.4(B). ▶ All shrubs with evidence of VELB exit holes or other evidence of VELB occupation that cannot be retained in the project area shall be transplanted to VELB mitigation sites during the dormant period for elderberry shrubs (November 1 to February 15). For elderberry shrubs displaying evidence of VELB occupation that cannot be transplanted, compensation for removal of shrubs shall be as provided, in accordance with SJMSCP Section 5.5.4(C). 	
<p>4.14-d: Giant Garter Snake. Potential habitat for giant garter snake would be lost and/or disturbed as a result of project activities during Phases 1 and 2.</p>	S	<p>The SJMSCP requires full avoidance of known occupied giant garter snake habitat. Based on the lack of evidence during previous focused surveys, the giant garter snake is not expected to be present on the project site. However, if the giant garter snake is discovered on the project site, a separate consultation with USFWS under the ESA and CDFG under the CESA may be required. The following is a summary of SJMSCP and USFWS incidental take avoidance and minimization measures for the giant garter snake:</p> <ul style="list-style-type: none"> ▶ Preconstruction surveys for the giant garter snake shall occur within 24 hours of ground disturbance. ▶ Construction within 200 feet of suitable aquatic habitat for giant garter snake shall occur during the active period for the snake, between May 1 and October 1. Between October 2 and April 30, the Joint Powers Authority, with the concurrence of the Permitting Agencies' representatives on 	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>the Technical Advisory Committee, shall determine whether additional measures (e.g., daily presence/absence surveys, exclusion fencing) are necessary to minimize and avoid take.</p> <ul style="list-style-type: none"> ▶ Limit vegetation clearing within 200 feet of the banks of potential giant garter snake aquatic habitat to the minimal area necessary. ▶ Confine the movement of heavy equipment within 200 feet of the banks of potential giant garter snake aquatic habitat to existing roadways to minimize habitat disturbance. ▶ Before ground disturbance, all onsite construction personnel shall be given instruction regarding the presence of the giant garter snake and the importance of avoiding impacts on this species and its habitats. ▶ In areas where wetlands, irrigation ditches, or other potential giant garter snake habitats are being retained on the site and are within 200 feet of an active construction area: <ul style="list-style-type: none"> a. install temporary fencing around potential garter snake habitat; b. restrict working areas, spoils and equipment storage, and other project activities to areas outside of potential garter snake habitat; and c. maintain water quality and limit construction runoff into wetland areas through the use of hay bales, filter fences, vegetative buffer strips, or other accepted equivalents. ▶ Other provisions of the USFWS Standard Avoidance and Minimization Measures during Construction Activities in 	

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		Giant Garter Snake Habitat shall be implemented (excluding programmatic mitigation ratios, which are superceded by the SJMSCP's mitigation ratios).	
<p>4.14-e: Western Pond Turtle. Suitable aquatic habitat for western pond turtle would be lost or disturbed as a result of project activities during Phases 1 and 2.</p>	PS	<p>The following measures are designed to minimize potential loss of western pond turtles:</p> <ul style="list-style-type: none"> ▶ During dewatering and fill of the pond in the RID Area, a qualified biologist shall be present onsite to search for western pond turtles. If no pond turtles are observed, no further mitigation is necessary. ▶ If pond turtles are found, they shall be relocated by the biologist to the nearest suitable aquatic habitat in Paradise Cut. 	LTS
<p>4.14-f: Swainson's Hawk. Suitable Swainson's hawk foraging habitat would be lost, and loss of active nests could occur as a result of project activities during all three phases.</p>	S	<p>The City of Lathrop has obtained a California Endangered Species Act Management Authorization from CDFG for the WLSP (1996) to offset the impacts on the Swainson's hawk from development of West Lathrop. The management authorization is dependent on implementation of the WLSP habitat management agreement for Swainson's hawk (Sycamore Environmental Consultants 1995). However, because the project proponent would seek coverage under the SJMSCP, it is anticipated that the SJMSCP would be the mechanism used to mitigate impacts on the Swainson's hawk from the proposed project. As an alternative, the existing management authorization could be used. A summary of both mitigation alternatives is provided below.</p> <p>The following minimization measures are a summary and clarification of those set forth in the SJMSCP. These would be implemented in addition to payment of development fees required by the SJMSCP for funding of the establishment of</p>	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>habitat conservation areas.</p> <ul style="list-style-type: none"> ▶ If project activity would occur during the Swainson’s hawk nesting season (March 1 to August 15), preconstruction surveys shall be conducted during the nesting season in areas with suitable nest trees in and immediately adjacent to the construction area. The survey shall be conducted within 1 week before the beginning of construction. ▶ If an active nest is found, all construction activities shall remain a distance of two times the dripline of the tree, measured from the nest. A setback of this distance shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave the nest. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests which are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing. ▶ If the project proponent elects to remove a nest tree, then nest trees shall be removed between September 1 and February 15, when the nests are unoccupied. <p>The following measures are a summary of those set forth in the California Endangered Species Act Management Authorization from CDFG for the WLSP:</p> <ul style="list-style-type: none"> ▶ Mitigation for the loss of suitable Swainson’s hawk foraging habitat shall be provided at a ratio of 0.5 acre of dedicated habitat to 1 acre of foraging habitat to be lost. ▶ Before project construction that would occur during the nesting season (March 1 through August 15), surveys shall 	

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>be conducted for active Swainson’s hawk nests in areas with suitable nest trees within 0.25 mile of the proposed construction area. Large trees throughout the project site provide suitable habitat. Surveys shall be conducted at the beginning of the nesting season (April 15 through April 30). A visible exclusion zone shall be established around the portion of the construction area that occurs within 0.25 mile of the nest tree, and no project construction activity shall commence in the exclusion zone between March 1 and August 15. Nests shall be revisited during the posthatching stage (June 1 through June 30) and during the fledging period (July 1 through July 31) to determine the number of juveniles that have fledged.</p> <ul style="list-style-type: none"> ▶ All active and historic (those used during the previous 5 years) Swainson’s hawk nest trees in the project area shall be preserved during implementation of the proposed project. No construction shall occur within 100 feet of a historic nest tree. A visible 100-foot exclusion zone shall be established around any historic nest tree located within 150 feet of a designated construction area. 	
<p>4.14-g: Aleutian Canada Goose and Greater Sandhill Crane. Winter foraging habitat for Aleutian Canada goose and greater sandhill crane would be lost during all three project phases, but suitable foraging habitat for these species is locally and regionally abundant.</p>	LTS	No mitigation measures are necessary.	LTS
<p>4.14-h: Burrowing Owl. Suitable burrowing owl foraging habitat would be lost and potential and active burrows could be removed as a result of project activities during all three phases.</p>	S	<p>The following is a summary and clarification of SJMSCP incidental take avoidance and minimization measures for burrowing owl:</p> <ul style="list-style-type: none"> ▶ Burrowing owls may be discouraged from entering or occupying construction areas by discouraging the presence of ground squirrels. To accomplish this, the project 	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>proponent could prevent ground squirrels from occupying the project site by employing one of several methods outlined in Section 5.2.4.15 of the SJMSCP. These include retention of tall vegetation, regular disking of the site, or use of chemicals or traps to kill ground squirrels.</p> <ul style="list-style-type: none"> ▶ Preconstruction surveys for burrowing owls shall be conducted within 75 meters of areas of project activity in locations with potential burrow habitat, including field edges, roadsides, levees, and fallow fields. Actively farmed agricultural fields and regularly disked or graded fields do not provide suitable burrow sites and need not be surveyed. The survey shall be conducted within 1 week before the beginning of construction. If burrowing owls are found, the following measures shall be implemented: <ul style="list-style-type: none"> During the nonbreeding season (September 1 through January 31), burrowing owls occupying the project site shall be evicted from the project site by passive relocation as described in the CDFG's Staff Report on Burrowing Owls (CDFG 1995). During the breeding season (February 1 through August 31), occupied burrows shall not be disturbed and shall be provided with a 75-meter protective buffer until and unless the Technical Advisory Committee, with the concurrence of the permitting agencies' representatives on the Technical Advisory Committee, or a qualified biologist approved by the permitting agencies, verifies through noninvasive means that either (1) the birds have not begun egg laying or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. After the fledglings are capable of independent survival, the burrow can be destroyed. 	

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>4.14-i: Colonial Nesting Birds. Suitable foraging habitat for the tricolored blackbird, black-crowned night-heron, and great blue heron would be lost during all three project phases, but no nesting colonies of these species are known or expected to occur on the project site, and suitable foraging habitat is locally and regionally abundant.</p>	LTS	<p>The following is a summary and clarification of SJMSCP incidental take avoidance and minimization measures for the northern harrier:</p> <ul style="list-style-type: none"> ▶ If project activity would occur during the northern harrier nesting season (March 15 through September 15), preconstruction surveys shall be conducted during the nesting season in suitable nesting habitat within 500 feet of areas of project activity. Suitable habitat is currently limited to the bench in the PCIP Area but also could include fallow fields if they are allowed to develop herbaceous cover. The survey shall be conducted within 1 week before the beginning of construction. ▶ A setback of 500 feet from nesting areas shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests which are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing. 	LTS
<p>4.14-j: Ground-Nesting or Streamside/Lakeside-Nesting Birds. Suitable nesting habitat for northern harrier would be disturbed during Phase 1 and could result in loss of active nests.</p>	PS	<p>The following is a summary and clarification of SJMSCP incidental take avoidance and minimization measures for the northern harrier:</p> <ul style="list-style-type: none"> ▶ If project activity would occur during the northern harrier nesting season (March 15 through September 15), preconstruction surveys shall be conducted during the nesting season in suitable nesting habitat within 500 feet of areas of project activity. Suitable habitat is currently limited to the bench in the PCIP Area but also 	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>could include fallow fields if they are allowed to develop herbaceous cover. The survey shall be conducted within 1 week before the beginning of construction.</p> <ul style="list-style-type: none"> ▶ A setback of 500 feet from nesting areas shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests which are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing. 	
<p>4.14-k: Birds Nesting in Isolated Trees or Shrubs Outside of Riparian Habitat. Yellow warblers are not expected to nest on the project site and are unlikely to be affected by the proposed project, but loggerhead shrike nests could be lost as a result of project construction during Phase 1.</p>	<p>PS</p>	<p>The following is a summary and clarification of SJMSCP incidental take avoidance and minimization measures for the loggerhead shrike:</p> <ul style="list-style-type: none"> ▶ If project activity would occur during the loggerhead shrike nesting season (March 1 through August 31), preconstruction surveys shall be conducted during the nesting season in suitable nesting habitat within 100 feet of areas of project activity. Suitable nesting habitat includes areas with natural vegetation of shrubs and small trees, including the UPRR tracks west of I-5, the PCIP Area, and the PCC Area. The survey shall be conducted within 1 week before the beginning of construction. ▶ A setback of 100 feet from nesting areas shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests that 	<p>LTS</p>

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.	
<p>4.14-l: Birds Nesting along Riparian Corridors. Yellow-breasted chats are not expected to nest in the project area and are unlikely to be affected by the proposed project, but Cooper’s hawk and white-tailed kite nests could be lost as a result of project construction during all three phases.</p>	S	<p>The following is a summary and clarification of SJMSCP incidental take avoidance and minimization measures for the white-tailed kite and Cooper’s hawk:</p> <ul style="list-style-type: none"> ▶ If project activity would occur during the raptor nesting season (February 15 through September 15), preconstruction surveys shall be conducted during the nesting season in suitable nesting habitat within 100 feet of areas of project activity. Suitable nesting habitat for both species is present in the PCIP Area and in riparian patches adjacent to the San Joaquin River and in the PCC Area. The survey shall be conducted within 1 week before the beginning of construction or tree removal. ▶ A setback of 100 feet from nesting areas shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests that are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing. 	LTS
<p>4.14-m: Snowy Egret, American White Pelican, Double-Crested Cormorant, and White-Faced Ibis. Suitable foraging habitat for these species would be lost or disturbed during all three project phases; however, these species are not expected to nest in the project area, and similar foraging habitat is locally and regionally abundant.</p>	LTS	No mitigation measures are necessary.	LTS
<p>4.14-n: Ferruginous Hawk, Mountain Plover, Merlin, and Long-Billed Curlew. Suitable foraging habitat for these wintering species</p>	LTS	No mitigation measures are necessary.	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
would be lost during all three project phases, but similar foraging habitat is locally and regionally abundant.			
4.14-o: Common Tree-Nesting Raptors. Red-tailed hawk, red-shouldered hawk, and great-horned owl nests could be lost as a result of project activities during all three project phases.	S	<p>The following measures are designed to avoid loss of common tree-nesting raptors:</p> <ul style="list-style-type: none"> ▶ If project activity would occur during the raptor nesting season (February 15 through September 15), preconstruction surveys shall be conducted during the nesting season in suitable nesting habitat within 100 feet of areas of project activity. Large trees throughout the project area provide suitable habitat. The survey shall be conducted within 1 week before the beginning of construction or tree removal. ▶ A setback of 100 feet from nesting areas shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests that are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing. 	LTS
4.14-p: Special-Status Bats. Construction throughout the project site during all three project phases could remove foraging habitat for special-status bats, but the project site is not expected to contain important roost sites that would be affected.	LTS	No mitigation measures are necessary.	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>4.14-q: Riparian Brush Rabbit. Project activities during construction Phases 1 and 2 would result in temporary and limited permanent loss and disturbance of suitable riparian brush rabbit habitat and could result in direct impacts on brush rabbits.</p>	S	<p>The SJMSCP requires full avoidance of riparian brush rabbit habitat in Paradise Cut and along the former SPRR right-of-way, because it is known occupied habitat. No conversion of occupied habitat or mortality to individual riparian brush rabbits is allowed under the SJMSCP. For the proposed project to qualify for coverage under the SJMSCP for riparian brush rabbit, a permanent setback of 300 feet from the outer edge of the dripline of riparian vegetation would be required. Because maintenance of such setbacks is not feasible, a separate consultation with USFWS under the ESA and CDFG under CESA would be conducted, and an Incidental Take Permit would be required. Specific mitigation measures would be developed during the consultation process. Potential take avoidance measures may include, but would not be limited to, conducting preconstruction surveys, conducting daily surveys of construction areas, installing exclusion fencing to prevent brush rabbits from entering construction areas, minimizing vegetation removal, and supporting the existing USFWS captive breeding program to establish new populations in appropriate habitat. Compensation for loss of habitat and other potential impacts is expected to include enhancement of existing habitat and creation of additional habitat in Paradise Cut. New high-ground areas would be created in the PCIP Area, and the existing Paradise Cut levee would provide new high ground after construction of the setback levee. Suitable vegetation would be planted in the areas.</p>	LTS
<p>4.14-r: Jurisdictional Waters of the United States and Riparian Habitat. Project construction during all three phases would result in loss, disturbance, and/or alteration of jurisdictional waters and riparian habitat.</p>	S	<p>The following measures are designed to minimize and mitigate impacts on jurisdictional waters of the United States and riparian habitat:</p> <ul style="list-style-type: none"> ▶ Before project implementation, a determination of waters of the United States, including jurisdictional wetlands and riparian habitat, that would be affected by the proposed 	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>project shall be made by qualified biologists through the formal Section 404 wetland delineation process. This is expected to be completed through reverification of the existing wetland delineation.</p> <ul style="list-style-type: none"> ▶ Authorization for fill of the agricultural ditch and pond, alteration of waters of the United States, and disturbance of riparian habitat shall be secured from USACE via the Section 404 permitting process. ▶ A CDFG Streambed Alteration Agreement is also expected to be required for work within existing levees along the San Joaquin River, Old River, and Paradise Cut. ▶ The acreage of jurisdictional habitat removed shall be replaced or restored/enhanced on a “no-net-loss” basis in accordance with USACE and CDFG regulations. Habitat restoration, enhancement, and/or replacement shall be at a location and by methods agreeable to USACE and CDFG. It is anticipated that restoration and enhancement activities in Paradise Cut and creation of the proposed back bays would be sufficient to replace lost habitat. ▶ Measures to minimize erosion and runoff into drainage channels shall be included in all drainage plans. Appropriate runoff controls such as berms, storm gates, detention basins, overflow collection areas, filtration systems, and sediment traps shall be implemented to control siltation and the potential discharge of pollutants. 	
<p>4.14-s: Wildlife Corridors. Construction of the Lathrop Landing back bay on the San Joaquin River would conflict with the SJMSCP prohibition against development in the San Joaquin River Wildlife Corridor.</p>	S	<p>The following measures are designed to address inconsistency with the SJMSCP:</p> <ul style="list-style-type: none"> ▶ Coordination with the Technical Advisory Committee, Joint Powers Authority, and resource agencies (e.g., USFWS and 	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>CDFG) shall be conducted, as appropriate, to obtain a minor revision, minor amendment, or major amendment to the SJMSCP. No amendment to the incidental take permit is anticipated, because development of the shoreline (with implemented mitigation measures) is not expected to result in significant effects on any state-listed or federally listed species.</p> <ul style="list-style-type: none"> ▶ During this coordination process, it shall be determined whether any compensation would be required. Compensation may include, but would not necessarily be limited to, onsite or offsite habitat improvements along the San Joaquin River, such as restoration of other areas in the corridor that provide limited habitat for terrestrial wildlife. In addition, habitat improvements in Paradise Cut may serve as compensation because they would enhance its function as a wildlife corridor connecting the San Joaquin River to the Old River system. 	
<p>4.14-t: Biological Resources Associated with Offsite Facilities. Construction of offsite facilities could adversely affect special-status species and sensitive habitats if they occur in or near the facility footprint.</p>	PS	<p>Biological resources potentially occurring at or near offsite project facilities and potential impact mechanisms would be the same as those identified previously for the RID, PCC, and PCIP Areas. Therefore, the mitigation approach described for the primary project area also would function for offsite facilities. The project applicant would participate in the SJMSCP for the offsite facilities and implement Mitigation Measures 4.14-b, -c, -d, -e, -f, -h, -j, -k, and -l (measures summarizing SJMSCP minimization measures) as appropriate based on the resources present. Mitigation Measures 4.14-o, -q, and -r also would be implemented as appropriate based on the resources present.</p> <p>A determination of habitat types and resources that might be present in each offsite facility area shall be made by a qualified</p>	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		biologist once the facility footprint is established and access for a reconnaissance-level survey is available. A wetland delineation consistent with USACE methodology also shall be completed. These data, combined with resource identification surveys completed by the SJCOG as part of the SJMSCP, shall be used to determine the appropriate mitigation measures for each site.	
4.15 FISHERIES			
4.15-a: RID Area Construction Sediment. General construction activities in the RID Area could potentially release sediment and other water quality constituents into the San Joaquin River, Old River, and Paradise Cut, which could adversely affect fish species locally. However, given the location of construction activities relative to the surrounding levees and the requirements for erosion control during construction, limited to no sediment releases would occur.	LTS	No mitigation measures are necessary.	LTS
4.15-b: Levee Breaching. Levee breaching activities along the San Joaquin River, Old River, and Paradise Cut could result in streambed and riverbank disturbance, sediment input, and contaminant input, all of which could substantially adversely affect fish species in the immediate area.	S	<p>The City shall ensure that a SWPPP is prepared and implemented during construction activities and that all water quality requirements included in various agency permits are adhered to. In addition, in-water work shall be restricted to periods when potential impacts on special-status fish species would be minimized.</p> <p>The City shall ensure that as project development proceeds, SWPPPs are prepared and implemented during construction. Goals of the SWPPPs shall include establishing procedures to minimize accelerated soil erosion, minimizing accelerated sedimentation in drainages and other receiving waters, minimizing or eliminating nonstormwater runoff, avoiding contaminant releases, and ensuring long-term stabilization of project soils. Also see Mitigation Measures 4.8-a and 4.8-c in</p>	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>section 4.8, "Hydrology and Water Quality." The City shall also ensure that all water quality requirements imposed by regulatory agencies (e.g., NMFS, USFWS, RWQCB, USACE) are implemented during project construction.</p> <p>In-water work shall be avoided and/or minimized during months when fish species are more susceptible to disturbance, particularly chinook salmon and Sacramento splittail. In-water construction activities in Old River and Paradise Cut should be conducted to the extent practical from July 1 through December 31. The highest priority months to avoid and/or minimize in-water work in Old River and Paradise Cut are March, April, and May, with January, February, and June being the second highest priority to avoid. In addition, all construction activities in Paradise Cut and associated levees must be completed during non-flood flows, when the San Joaquin River is not overtopping the Paradise Weir and there is no immediate threat of the river overtopping the weir.</p> <p>In-water construction activities in the San Joaquin River should be further restricted to avoid the primary adult fall-run chinook salmon upstream migration in August, September, and October. As much of the in-water work in the San Joaquin River as possible should be conducted between July 1 and August 31. If a longer construction period is required, the months of January, February, and June should be considered first; September and October should be considered next; and March, April, and May should be considered last.</p>	
<p>4.15-c: Bridge and Utility Crossings. Bridge and utility crossing construction activities on the San Joaquin River could result in streambed and riverbank disturbance, sediment input, and contaminant input, all of which could substantially adversely affect fish species in</p>	S	<p>The City and the project applicant shall implement all measures identified for 4.15-b. Implementation of the items included in Mitigation Measure 4.15-b also would address potential construction impacts associated with bridge crossings over the</p>	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
the immediate area.		San Joaquin River. In addition, the SWPPP used for the directional boring of the 4-inch natural gas pipeline under the San Joaquin River shall include specific measures to avoid, minimize, and, if necessary, clean up bentonite/drilling slurry releases into the river. Measures could include monitoring drilling slurry pressures and halting drilling if pressures drop significantly; monitoring the river for bentonite plumes; avoiding drilling at night; and having containment booms, vacuum trucks, and other containment and cleanup equipment onsite during drilling. Also see Mitigation Measure 4.8-e in section 4.8, "Hydrology and Water Quality."	
4.15-d: Paradise Cut Bridge. Bridge construction activities on Paradise Cut could result in short-term degradation of fish habitat through streambed and riverbank disturbance, sediment input, and contaminant input that could substantially affect special-status fish species.	S	The project applicant shall implement all measures identified for 4.15-b. All construction activities in Paradise Cut must be completed during non-flood flows, when the San Joaquin River is not overtopping the Paradise Weir and there is no immediate threat of the river overtopping the weir.	LTS
4.15-e: Dock Construction. Dock construction activities along the San Joaquin River, Old River, and Paradise Cut could result in degradation of fish habitat through riverbank and benthic habitat disturbance and could adversely affect special-status species through sediment and contaminant input. However, construction activities for docks would be small in scale and temporary, and much of the activity would be limited to back bays. Disruption to fish and their habitat would be minimal.	LTS	No mitigation measures are necessary.	LTS
4.15-f: Structural Habitat Features. New bridges, docks, back bays, and habitat enhancements associated with the proposed project are long-term structural features located in or near the adjacent waterways that could affect fish habitats and populations.	LTS/B	No mitigation measures are necessary.	LTS/B
4.15-g: Entrainment in Project Pumps. Surface water would be pumped from Old River into the central project lake (River Islands lake)	B	No mitigation measures are necessary.	B

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
to manage lake levels. Special-status and other fish species could be adversely affected if they are drawn into the pumps. The amount and timing of existing agricultural diversions would be modified by the proposed project in a manner that reduces the amount of water diverted and reduces seasonal impacts on fisheries. Existing nonscreened agricultural pumps also would be replaced with screened pumps.			
4.15-h: Water Discharges to the Delta. Stormwater from the RID Area would eventually be pumped into Paradise Cut, drain into Old River, and possibly affect special-status fish species. However, the overall water quality of discharges into Paradise Cut would be improved under the proposed project compared to the agricultural return flow experienced under existing conditions.	B	No mitigation measures are necessary.	B
4.15-i: Altered Hydrology from Water Discharges. The discharge of stormwater, surface water runoff, and wastewater may alter the hydrology of Paradise Cut and adversely affect fishery resources. However, alterations would be minor and would be compensated for by increased water volumes associated with widening and deepening the Paradise Cut canal.	LTS	No mitigation measures are necessary.	LTS
4.15-j: Maintenance Dredging of Back Bays. Maintenance dredging of back bays may have substantial adverse effects on water quality and fish habitat in the San Joaquin River, Old River, and the back bays themselves.	S	Dredging of back bays would be permitted only between July 1 and August 31, the period when special-status fish species that could occur in the project area are least likely to be affected. It is expected that a consultation with USFWS and NMFS under Section 7 of the ESA would be required for these agencies to approve the proposed project. The dredging window described above may be altered based on the consultation with USFWS and NMFS.	LTS
4.15-k: Habitat Modifications in Paradise Cut. Habitat changes in Paradise Cut resulting from channel modifications, increased flood flows, and setback levee designs could provide additional fisheries habitat, particularly for Sacramento splittail.	B	No mitigation measures are necessary.	B

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
4.15-l: Diversion of Chinook Salmon Smolts. Increasing flood flows in Paradise Cut may divert chinook salmon smolts from the San Joaquin River into Paradise Cut, resulting in higher entrainment and predation mortality if these fish reach the CVP/SWP pumps. However, incidence of increased flood flows would be infrequent, and any increases in salmon smolts entering Paradise Cut would be minor.	LTS	No mitigation measures are necessary.	LTS
4.15-m: Creation of New Fish Habitat in the RID Area. Creation of the new internal lake in the RID Area would result in an increase in available fish habitat.	B	No mitigation measures are necessary.	B
4.15-n: Introduction of Exotic Fish into the Delta. Exotic fish species could be transferred from the project lake into the Delta, resulting in adverse impacts on existing Delta fish populations.	LTS	No mitigation measures are necessary.	LTS
4.15-o: Increased Water Consumption. There is a potential indirect impact on fisheries resources associated with providing increased domestic water to support the proposed project.	LTS	No mitigation measures are necessary.	LTS
4.16 CULTURAL RESOURCES			
4.16-a: Listed Archaeological Sites. Construction of the proposed project would alter the surrounding visual context of cultural resources listed as California historic landmarks.	S	Before project implementation, the City of Lathrop shall retain an architectural historian to completely record the railroad drawbridge associated with site RI-2 (also called RI-13H) (P-39-00002) within the project area. This shall be completed to the standards of a Historic American Engineering Record. Recordation of the site would result in permanent documentation of the architectural, visual, and historic context of the site and would give historians and others access to documentation on preproject conditions. This is a standard mitigation practice for cultural resources and historic properties. In addition, as the project is developed, a public interpretive feature such as a plaque or sign shall be installed in a public space on the project site (e.g., park, trail), describing the history and significance of	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		the railroad bridge. The bridge must be visible from the location of the interpretive feature.	
<p>4.16-b: Recorded Archaeological Sites. Construction of the proposed project would affect one prehistoric archaeological site and two archaeological isolates recorded during the field survey. One of these sites, RI-1, could represent a unique archaeological resource.</p>	PS	<p>The City of Lathrop shall retain a professional archaeological consultant to conduct Phase II testing at prehistoric site RI-1. The investigations shall be conducted before construction begins at this site. As currently envisioned, this site would be affected during Phase 1a activities. If any archaeological resources found at the site are concluded by the archaeologist to represent “unique archaeological resources,” as defined by CEQA, the archaeologist shall recommend additional actions deemed necessary for the protection of these resources. Such actions may include additional testing, data recovery, mapping, capping, or avoidance of the resource. The City shall ensure additional protection actions (if needed) are implemented prior to construction at this site.</p>	LTS
<p>4.16-c: Historic Properties. Project construction would result in the removal of several existing structures, as well as construction of structures near offsite historic properties that would not be removed. Three of these offsite structures and groups of structures are, or appear to be, eligible for listing on the California Register of Historical Resources.</p>	S	<p>Before project implementation the City of Lathrop shall retain an architectural historian to completely record sites RI-10H and RI-12H (historic grain silos). This shall be completed to the standards of a Historic American Engineering Record. Recordation of the sites would result in permanent documentation of the architectural, visual, and historic context of the resources and would give historians and others access to documentation on preproject conditions. This is a standard mitigation practice for cultural resources and historic properties. In addition, as the project is developed, a public interpretive feature such as a plaque or sign shall be installed in a public space on the project site (e.g., park, trail) or on the shoulder of Manthey Road near the silos. The interpretive feature shall explain Lathrop’s agricultural history as well as the history of the dairy the silos were associated with.</p>	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>4.16-d: Undiscovered/Unrecorded Archaeological Sites. Construction of the proposed project may affect as yet undiscovered or unrecorded archaeological sites.</p>	PS	<p>Before the initiation of construction or ground-disturbing activities associated with the proposed project, all construction personnel shall be alerted to the possibility of buried cultural resources. If artifacts or unusual amounts of stone, bone, or shell are uncovered during construction activities, work within 50 feet of the specific construction site at which the suspected resources have been uncovered shall be suspended, and the City of Lathrop Community Development Department/Planning Division shall be immediately contacted. At that time, the City shall retain a professional archaeological consultant. The archaeologist shall conduct a field investigation of the specific site and recommend mitigation deemed necessary for the protection or recovery of any cultural resources concluded by the archaeologist to represent significant or potentially significant resources as defined by CEQA. The City shall implement the mitigation prior to the resumption of construction activities at the construction site.</p>	LTS
<p>4.16-e: Undiscovered/Unrecorded Human Remains. Project-related construction activities could affect as yet undiscovered or unrecorded human remains.</p>	S	<p>If human remains are discovered at any project construction sites during any phase of construction, work within 50 feet of the remains shall be suspended immediately, and the City of Lathrop Community Development Department/Planning Division and the county coroner shall be immediately notified. If the remains are determined by the county coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The City of Lathrop shall also retain a professional archaeological consultant. The archaeologist shall conduct a field investigation of the specific site and consult with the Most Likely Descendant identified by the NAHC. As necessary, the archaeological consultant may provide professional assistance to the Most Likely Descendant including the excavation and</p>	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		removal of the human remains. The City shall implement any mitigation prior to the resumption of activities at the site where the remains were discovered.	
<p>4.16-f: Offsite Resources. Specific construction corridors/footprints have not been absolutely defined for several offsite project elements (e.g., electrical transmission lines, Golden Valley Parkway link to I-205). Construction-related activities during installation of these facilities could affect as yet undiscovered or unrecorded archaeological sites in these areas.</p>	S	Once disturbance areas for offsite project elements are sufficiently defined and property access is available, the City shall retain a professional archaeological consultant to review the results of existing records searches and conduct field surveys, as needed, for these facilities. If cultural resources are found in the potential disturbance area, Mitigation Measures 4.16-a through 4.16-c shall be implemented as appropriate. If discoveries are made during construction, Mitigation Measures 4.16-d and 4.16-e shall be implemented.	LTS
4.17 AESTHETIC RESOURCES			
<p>4.17-a: Views of the Site from Surrounding Lands. After project implementation, the project elements visible from the surrounding lands would be houses on the high-ground corridors and potentially small portions of the project bridges, the electrical transmission line connecting to the project site, and tops of buildings in the Employment Center and potentially the Town Center. However, most views of the houses would be obscured by existing levees and planned landscaping/revegetation, and other project features would be visible only from limited locations. In addition, from most vantage points, viewers from surrounding lands would be limited to the low densities of residents in dispersed farmsteads/homes and farmers and others tending agricultural lands.</p>	LTS	No mitigation measures are necessary.	LTS
<p>4.17-b: Views from I-5 and the I-5/I-205/SR 120 Merge Segment. After project implementation, views of the project site from I-5 and the I-5/I-205/SR 120 merge segment would include the cross levee, the top portion of buildings in the Employment Center and potentially the Town Center, the Golden Valley Parkway bridges over the San Joaquin</p>	LTS	No mitigation measures are necessary.	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
River and Paradise Cut, the electrical transmission line connecting to the project site, and some houses on high-ground corridors. Although this would alter existing views, none of these roadway segments is a scenic highway; in addition, the altered views would not be substantially different from those from other, nearby portions of these highways.			
4.17-c: Views for Recreational Boaters. After project implementation, views of the levee face for recreational boaters along the San Joaquin River and Old River would include docks, homes along the high-ground corridors, restored habitat, and landscaping. This variety of views would replace the managed vegetation and riprap typical of the existing levee faces.	LTS	No mitigation measures are necessary.	LTS
4.17-d: Nighttime Views. The degree of darkness in the City of Lathrop and on the proposed project site would diminish as a result of development, effectively obscuring views of stars, constellations, and other features of the night sky. However, implementation of lighting guidelines in the UDC would substantially reduce the potential level of light generated by the proposed project, thereby minimizing the loss of nighttime views.	LTS	No mitigation measures are necessary.	LTS
4.17-e: Views of the Grain Silos and Railroad Bridge. The brick grain silos between I-5 and the UPRR tracks and the UPRR bridge over the San Joaquin River are considered historic structures (see section 4.16, "Cultural Resources"). These structures are not located on the proposed project site; however, project elements would be visible behind these structures when they are viewed from the east. The visual background for these historic structures would be altered, although the structures themselves would not be affected.	LTS	No mitigation measures are necessary.	LTS
4.17-f: Design and Function of Walls and Fences/Consistency with the WLSP. Proposed openings in walls adjacent to arterial roads, as described in the UDC, could expose adjacent residential areas to	PS	Before approval of any residential development that would be located adjacent to an existing or planned future arterial road, proposed walls and fences shall be included in the architectural	LTS

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
intrusive levels of light and glare. This is inconsistent with guidelines related to the type and function of walls as described in the WLSP.		and design review. Any proposed gaps or openings in walls along the arterial road shall be evaluated as part of the design review for their potential to permit light and glare from the roadway to enter the residential development. Gaps or other openings shall not be permitted where light or glare may pass through the gap and adversely affect homes or other residences.	
<p align="center">B = Beneficial LTS = Less-than-Significant S = Significant SU = Significant and Unavoidable PS = Potentially Significant</p>			

EXHIBIT D – RIVER ISLANDS AT LATHROP PROJECT

STATEMENT OF FINDINGS

INTRODUCTION

The California State Lands Commission (CSLC), acting as a responsible agency under the California Environmental Quality Act (CEQA), makes these findings to comply with CEQA as part of its discretionary approval to authorize issuance of an amendment to Lease No. PRC 8752.9, a General Lease – Public Agency Use (Lease), to the City of Lathrop (City) for use of sovereign land associated with a new bridge in the San Joaquin River, as part of the proposed River Islands at Lathrop (Project). (See generally Pub. Resources Code, § 21069; State CEQA Guidelines, § 15381.)¹ The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6301, 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust.

The CSLC is a responsible agency under CEQA for the Project because the CSLC must approve a lease for the Project to go forward and because the City, as the CEQA lead agency, has the principal responsibility for approving the Project and has completed its environmental review under CEQA. The City analyzed the environmental impacts associated with implementation of the Project in a Subsequent Environmental Impact Report (SEIR) (State Clearinghouse [SCH] No. 1993112027) and, on January 29, 2003, certified the SEIR and adopted the Project Mitigation Monitoring and Reporting Program (MMRP), Findings, and Statement of Overriding Considerations (SOC).

The Final SEIR addresses the potential environmental effects associated with the development of a mixed-use residential/commercial development to be called River Islands at Lathrop ("River Islands"). The Project site includes approximately 4,905 acres of agricultural land and open space located on Stewart Tract (an inland island bounded by Paradise Cut, the San Joaquin River and Old River) and Paradise Cut (a flood-controlled bypass connecting the San Joaquin River and Old River in the Sacramento-San Joaquin River Delta). The Project includes, among other elements, an employment center, a town center, dock facilities, residences, and golf courses. In addition to the residential/commercial development itself, the Project also includes:

- Various flood management elements;
- Construction of back bays, channels, and other water features;
- Biological habitat restoration/creation; and

¹ CEQA is codified in Public Resources Code section 21000 et seq. The State CEQA Guidelines are found in California Code of Regulations, Title 14, section 15000 et seq.

- Retention of natural lands.

Proposed offsite Project elements located outside the 4,990 acres on Stewart Tract and Paradise Cut include, among other things, an electrical transmission line, a natural gas pipeline, and a road extension to Interstate 205 ("I-205"). The Project is divided into two phases; Phase 1 (the near-term Project) has been designed and planned at a greater level of detail than Phase 2. Phase 1a, a subphase of Phase 1, focuses on development of up to 800 housing units along the eastern edge of the River Islands Development (RID) Area.

As approved by the City, Phase 1 and Phase 2 of the Project each include construction of one new bridge, as well as a temporary falsework and trestle system for bridge construction, located on State sovereign land in the San Joaquin River near the city of Lathrop. Ultimately, the two parallel, three-span, cast-in-place, prestressed concrete box girder bridges, to be known as Bradshaw's Crossing, will convey four lanes of traffic (two per bridge). Each bridge will be 40 feet wide, 420 feet between abutments, and 160 feet between in-river columns, and will provide a minimum vertical clearance of 26 feet.

Additionally, the Project includes two proposed natural gas lines which would be installed on land under the jurisdiction of the CSLC: The first, a 4-inch line, would be directionally bored under the river adjacent to the location of the proposed Bradshaw's Crossing bridges. This line would provide natural gas for Phases 1a and 1 of the proposed Project. The second, a 6-inch line, would be attached to one of the Bradshaw's Crossing bridges.

Because the proposed bridge and pipeline construction activities would occur on State sovereign land, a lease or leases for these components were required from the CSLC. The CSLC authorized the Lease on June 28, 2007 (Calendar Item C35). A provision in the Lease specified a completion date for the improvements that the City was unable to meet. Consequently, the City applied for an amendment to the Lease to extend the deadline by which construction must be complete for the two bridges, attached utility lines, and rock riprap in the San Joaquin River.

The SEIR identified 13 resource areas on which the overall Project may have significant impacts; however, the components of the Project within the jurisdiction of the CSLC (i.e., construction, use and maintenance of the two bridges, bridge-attached and directionally-drilled utility lines, and riprap) could have significant environmental effects only on the following 10 environmental resource areas:

- Traffic
- Air Quality
- Noise
- Geology, Soils and Mineral Resources
- Hydrology and Water Quality
- Hazardous Materials and Public Health
- Public Services
- Terrestrial Biology
- Fisheries
- Cultural Resources

In certifying the SEIR and approving the Project, the City imposed various mitigation measures for Project-related significant effects on the environment as conditions of Project approval and concluded that Project-related impacts would be substantially lessened with implementation of mitigation measures. Even with identified mitigation, impacts to five resource areas—Traffic, Air Quality, Noise, Public Utilities, and Agricultural Resources—were considered significant and unavoidable and, as a result, the City adopted a SOC (see Attachment A); however, the significant and unavoidable impacts identified in the SEIR, such as increased traffic, noise, emissions, and degradation of agricultural land, all result from components of the Project such as the new mixed-use residential/commercial development that are outside the jurisdiction and approval authority of the CSLC.

As a responsible agency, the CSLC complies with CEQA by considering the lead agency's SEIR and reaching its own conclusions on whether, how, and with what conditions to approve a project. In so doing, the CSLC may require changes in a project to lessen or avoid the effects, either direct or indirect, of that part of the project which the CSLC will be called on to carry out or approve. In order to ensure the identified mitigation measures and/or project revisions are implemented, the CSLC adopts the MMRP as set forth in [Exhibit C](#) as part of its Project approval.

FINDINGS

The CSLC's role as a responsible agency affects the scope of, but not the obligation to adopt, findings required by CEQA. Findings are required under CEQA by each public agency that approves a project for which an EIR has been certified that identifies one or more significant impacts on the environment (Pub. Resources Code, § 21081, subd. (a); State CEQA Guidelines, § 15091, subd. (a)). Because the SEIR certified by the City for the Project identifies potentially significant impacts that fall within the scope of the CSLC's approval, the CSLC makes the Findings set forth below as a responsible agency under CEQA. (CEQA Guidelines, § 15096, subd. (h); *Resource Defense Fund v. Local Agency Formation Comm. of Santa Cruz County* (1987) 191 Cal.App.3d 886, 896-898.)

While the CSLC must consider the environmental impacts of the Project as set forth in the City's SEIR, the CSLC's obligation to mitigate or avoid the direct or indirect environmental impacts of the Project is limited to those parts which it decides to carry out, finance, or approve (Pub. Resources Code, § 21002.1, subd. (d); CEQA Guidelines, §§ 15041, subd. (b), 15096, subds. (f)-(g)). Accordingly, because the CSLC's exercise of discretion involves only the issuance of an amendment to the Lease to extend the time for completion of the new parallel bridges and associated structures across the San Joaquin River, the CSLC is responsible for considering only the environmental impacts related to lands or resources subject to the CSLC's jurisdiction. With respect to all other impacts associated with implementation of the Project, the CSLC is bound by the legal presumption that the SEIR fully complies with CEQA.

The CSLC has reviewed and considered the information contained in the City's SEIR. All significant adverse impacts of the Project identified in the SEIR relating to the

CSLC's approval of an amendment to the Lease, which would authorize Project activities on State sovereign land in the San Joaquin River, are included herein and organized according to the resource affected. These Findings, which reflect the independent judgment of the CSLC, are intended to comply with CEQA's mandate that no public agency shall approve or carry out a project for which an EIR has been certified that identifies one or more significant environmental effects unless the agency makes written findings for each of those significant effects. The possible findings on each significant effect are:

- (1) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment;
- (2) Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency;
- (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.²

These Findings are based on the information contained in the SEIR, as well as information provided by to CSLC staff by the Applicant, all of which is contained in the administrative record. The mitigation measures are briefly described in these Findings; more detail on the mitigation measures is included in the City's SEIR.

The CSLC is the custodian of the record of proceedings upon which its decision is based. The location of the CSLC's record of proceedings is in the Sacramento office of the CSLC, 100 Howe Avenue, Suite 100-South, Sacramento, CA 95825.

I. IMPACTS REDUCED TO LESS THAN SIGNIFICANT LEVELS WITH MITIGATION

The impacts listed in the table below were determined in the SEIR to be potentially significant without mitigation. However, the mitigation measures described in the table will mitigate to below a level of significance all Project-related impacts to State-owned lands and associated resources; therefore, the CSLC finds that:

- (1) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment.

² See Public Resources Code section 21081, subdivision (a), and State CEQA Guidelines section 15091, subdivision (a).

Impact	Mitigation Measures (MMs) to Reduce Impacts to Less than Significant
A. TRAFFIC	
<p>4.4-i: Construction traffic and vehicles associated with the proposed Project may create significant traffic congestion in the area.</p>	<p>MM 4.4-i: The following measures will be implemented:</p> <ul style="list-style-type: none"> ○ All degradation of pavement condition along Stewart Road and Manthey Road due to River Islands construction traffic will be fully repaired to the satisfaction of the City. City staff and the Project applicant shall jointly monitor the condition of each roadway every six months; ○ No Project construction traffic shall be allowed to use Paradise Road; ○ No construction delivery truck traffic shall be allowed on the local roadway network before 8:00 AM or after 4:30 PM; and ○ No construction worker traffic shall be allowed on the local roadway network between 6:30 and 8:00 AM and between 4:30 and 6:00 PM; or <p>As alternative mitigation to the impact along Stewart Road, the Project proponents are proposing to have construction traffic enter the site via Manthey Road and the Paradise Cut levee road via an existing private crossing of the Union Pacific Railroad (UPRR) tracks (formerly Southern Pacific Railroad [SPRR]) to segregate construction traffic from other, routine traffic.</p>
<p>4.4-v: Construction traffic and vehicles associated with the proposed Project, considered cumulatively with increased general traffic from the early phases of the Project itself, may create significant traffic congestion in the area.</p>	<p>MM 4.4-v: The following measures will be implemented:</p> <ul style="list-style-type: none"> ○ All degradation of pavement condition along Stewart Road and Manthey Road due to River Islands construction traffic will be fully repaired to the satisfaction of the City. City staff and the Project applicant shall jointly monitor the condition of each roadway every six months; ○ No Project construction traffic shall be allowed to use Paradise Road; ○ No construction delivery truck traffic shall be allowed on the local roadway network before 8:00 AM or after 4:30 PM; and ○ No construction worker traffic shall be allowed on the local roadway network between 6:30 and 8:00 AM and between 4:30 and 6:00 PM. <p>As alternative mitigation to the impact along Stewart Road, the Project proponents are proposing to have construction traffic enter the site via Manthey Road and the Paradise Cut levee road via an existing private crossing of the UPRR tracks (formerly SPRR) to segregate construction traffic from other, routine traffic.</p>

Impact	Mitigation Measures (MMs) to Reduce Impacts to Less than Significant
B. AIR QUALITY	
<p>4.5-a: Construction activities associated with the proposed Project would result in the generation of nitrogen oxides (NO_x), reactive organic gases (ROG), and particulates (PM₁₀) emissions in addition to the potential airborne entrainment of asbestos associated with demolition of existing structures.</p>	<p>MM 4.5-a: In accordance with San Joaquin Valley Air Pollution Control District (SJVAPCD) guidelines, the following mitigation, which includes SJVAPCD Basic, Enhanced, and Additional Control Measures, shall be incorporated and implemented. In addition to the mitigation measures identified below, construction of the proposed Project is required to comply with applicable SJVAPCD rules and regulations, including the requirement of a California Occupational Safety and Health Administration—qualified asbestos survey before demolition.</p> <ul style="list-style-type: none"> ○ All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, or vegetative ground cover; ○ All onsite unpaved construction roads and offsite unpaved construction access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant; ○ All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking; ○ During demolition of buildings all exterior surfaces of the building shall be wetted; ○ When materials are transported offsite, all material shall be covered, effectively wetted to limit visible dust emissions, or at least 6 inches of freeboard space from the top of the container shall be maintained; ○ All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at least once every 24 hours when operations are occurring. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.); ○ Following the addition of materials to, or the removal of materials from, the surfaces of outdoor storage piles, piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant; ○ Onsite vehicle speeds on unpaved roads shall be limited to 15 mph; ○ Sandbags or other erosion control measures shall be

Impact	Mitigation Measures (MMs) to Reduce Impacts to Less than Significant
	<p>installed to prevent silt runoff to public roadways from adjacent Project areas with a slope greater than 1 percent;</p> <ul style="list-style-type: none"> ○ Wheel washers shall be installed for all exiting trucks and equipment, or wheels shall be washed to remove accumulated dirt prior to leaving the site; ○ Excavation and grading activities shall be suspended when winds exceed 20 mph; ○ The overall area subject to excavation and grading at any one time shall be limited to the fullest extent possible; ○ Onsite equipment shall be maintained and properly tuned in accordance with manufacturers' specifications; and ○ When not in use, onsite equipment shall not be left idling.
C. NOISE	
<p>4.6-a: Depending on the activities being performed, as well as the duration and hours during which activities occur, construction-generated noise levels at nearby residences could violate City of Lathrop Noise Ordinance standards.</p>	<p>MM 4.6-a: Per the City of Lathrop Noise Ordinance, construction activities in, or within 500 feet of a residential zone (i.e., an area containing occupied residences) shall be prohibited between 10 p.m. and 7 a.m. Sunday through Thursday and between 11 p.m. and 9 a.m. on Fridays, Saturdays, and legal holidays.</p> <p>In addition, all construction vehicles or equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and acoustical shields or shrouds, in accordance with manufacturers' recommendations. Construction equipment and truck routes shall be arranged to minimize travel adjacent to occupied residences. Stationary construction equipment and staging areas shall be located as far as possible from sensitive receptors, and temporary acoustic barriers may be installed around stationary equipment if necessary.</p>
D. GEOLOGY, SOILS AND MINERAL RESOURCES	
<p>4.7-b: Ground shaking on the Project site could expose people or structures to substantial risk of loss, injury, or death.</p>	<p>MM 4.7-b: Project facilities shall be designed for maximum horizontal ground surface accelerations of at least 0.23 g. Geotechnical reports completed by ENGEO in 2002 for the proposed Project predict that a horizontal ground surface acceleration of 0.23 g at the River Islands site would have a 10% probability of being exceeded in a 50-year Project design life. This estimate incorporates the possibility of a seismic event associated with the Great Valley Fault System. A surface acceleration of 0.23 g exceeds the maximum ground surface accelerations previously recorded in the area (estimated at 0.16 g), which occurred during the 1906 San Francisco earthquake. By designing Project facilities to meet minimum safety standards during a seismic event with ground</p>

Impact	Mitigation Measures (MMs) to Reduce Impacts to Less than Significant
	surface accelerations of at least 0.23 g, risks of loss, injury, or death from ground shaking would be substantially reduced.
<p>4.7-c: Earthquake-induced liquefaction at the Project site could result in substantial risk of structural damage and could expose residents, workers and visitors on the Project site to substantial risk of bodily injury.</p>	<p>MM 4.7-c: A design-level geotechnical study shall be completed for each Project development (e.g., housing subdivision, Employment Center subdivision, school, levee segment) before a grading permit is issued, focusing on the liquefaction potential in the area and identifying appropriate means to minimize/avoid damage from liquefaction. Geotechnical design recommendations included in each study shall be implemented during Project construction. Potential recommendations may include overexcavating and recompacting the area with engineered fill or in-place soil densification. In-place densification measures may include deep dynamic compaction, compaction grouting, vibro-compaction, and the use of nonliquefiable caps. Where existing levee soils cannot be densified, the potential liquefaction-induced settlement shall be accounted for in the final design grades and setbacks for the Project.</p>
<p>4.7-f: The shrinking and swelling of soils could result in damage to structures, underground utilities, and other facilities on the Project site during the operation of the proposed development.</p>	<p>MM 4.7-f: A design-level geotechnical study shall be completed for each Project development (e.g., housing subdivision, Employment Center subdivision, school, levee segment) before a grading permit is issued. The study shall specifically address whether expansive soils are present in the development area and include measures to address these soils where they occur. Methods to address expansive soils include regrading areas with appropriate soils and adding special design features to foundations and other underground facilities. Measures included in the report will be implemented as appropriate, based on the specific soil conditions and the type of facility being constructed.</p>
<p>4.7-g: The moderate corrosiveness of onsite soils could cause damage to buried concrete slabs and foundations and buried metal pipes during the operation of the River Islands Project.</p>	<p>MM 4.7-g: A design-level geotechnical study shall be completed for each Project development (e.g., housing subdivision, Employment Center subdivision, school, levee segment) before a grading permit is issued. The study shall specifically address corrosion potential and include measures to address corrosive soils where damage to underground facilities may occur. Potential methods to address corrosive soils include the use of cathodic protection or sacrificial anodes for buried metals, use of concrete with a lower water-to-cement ratio and/or sulfate resistant concrete, and the use of Type II or Type II Modified cement. Appropriate measures identified in each geotechnical study shall be implemented during Project construction.</p>

Impact	Mitigation Measures (MMs) to Reduce Impacts to Less than Significant
E. HYDROLOGY AND WATER QUALITY	
<p>4.8-d: Constructing bridges and docks on the San Joaquin River, Old River, and/or Paradise Cut could cause sedimentation and water quality impacts.</p>	<p>MM 4.8-d: The following shall be implemented:</p> <ul style="list-style-type: none"> ○ MM 4.8-a, which requires preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP), including an erosion control and construction plan, and an environmental monitoring and mitigation compliance and reporting program meeting certain requirements; and ○ MM 4.8-c, which requires implementation of measures that would reduce turbidity and release of construction-related contaminants when working adjacent to bodies of water. <p>These measures would reduce potential sedimentation/water quality impacts associated with constructing bridges and docks on the San Joaquin River, Old River, and/or Paradise Cut to less-than-significant levels.</p>
<p>4.8-e: The proposed directional boring of a natural gas line under the San Joaquin River could result in short-term degradation of water quality from accidental seepage of drilling slurry into the river.</p>	<p>MM 4.8-e: Based on the assumption that a frac-out may occur during directional drilling under the San Joaquin River, the following detection, containment, and prevention procedures will be implemented by the Project applicant to mitigate the potential effects of a frac-out:</p> <ul style="list-style-type: none"> ○ Provide an environmental monitor during all boring operations. A drill site orientation meeting will be held before drilling begins involving the drill crew and the environmental monitor. During the meeting, the drill crew members will be made aware of sensitive resources in the area and will be trained on how to respond in the event a frac-out occurs. ○ Before a drilling operation begins, a reconnaissance survey will be made by the drill crew chief and environmental monitor to identify conditions that may indicate a greater likelihood for frac-outs, and site features that may be affected should a frac-out occur (e.g. San Joaquin River, levees, irrigation canals). The reconnaissance survey will then be used to establish the final drill location and the level of monitoring for the drill site. ○ If substrates in the bore area are considered particularly sensitive to frac-outs, boring measures will be implemented that reduce the potential for a frac-out (e.g., using extra low pressures and nontoxic leak sealants). ○ Detection of a frac-out may come about from observed loss in drilling pressure, slowdown in the volume of returned drilling slurry, or visual observation of drilling slurry escaping into water or land. In the event that a frac-out is detected, drilling operations will cease immediately

Impact	Mitigation Measures (MMs) to Reduce Impacts to Less than Significant
	<p>and the environmental monitor will be notified. Treatment of the frac-out after the drilling operation is stopped involves containing any extruded drilling slurry, reporting, and cleanup. In rare instances the best approach may be to continue boring while the frac-out occurs and containing/cleaning-up drilling slurry as it is released. Circumstances leading to adoption of this approach (e.g. risk of the drill-head seizing if drilling stops, the bore is almost complete) should be identified with the environmental monitor prior to initiating drilling and described to the appropriate permitting agencies.</p> <ul style="list-style-type: none"> ○ The environmental monitor will immediately notify by telephone the appropriate office of the California Department of Fish and Game (CDFG), the Central Valley Regional Water Quality Control Board (RWQCB, and other appropriate permitting agencies of any frac-out that may affect areas under their jurisdictions. ○ The contractor will also follow relevant measures contained in Mitigation Measures 4.8-a and 4.8-c as appropriate to avoid sediment entering the San Joaquin River at bore hole entrance and exit points.
F. HAZARDOUS MATERIALS AND PUBLIC HEALTH	
<p>4.9-b: Past agricultural and farming operations in the RID Area could have resulted in contamination of soil and/or groundwater in some locations. Demolition, excavation and construction activities in the RID Area could result in the exposure of construction workers to hazardous materials.</p>	<p>MM 4.9-b: Before demolition of any structures associated with past and current farming operations (e.g., buildings, aboveground storage tanks, underground storage tanks), the Project applicant shall investigate the extent to which soil and/or groundwater has been contaminated from these operations. This investigation would include, as necessary, analysis of soil and/or groundwater samples taken at or near the potential contamination sites. If the results indicate that contamination exists at levels above regulatory action standards, then the San Joaquin County Environmental Health Department (SJCEHD) shall be notified and the site shall be remediated in accordance with recommendations made by SJCEHD; RWQCB; Department of Toxic Substances Control (DTSC); or other appropriate federal, state, or local regulatory agencies. The agencies involved would be dependent on the type and extent of contamination.</p> <ul style="list-style-type: none"> ○ If evidence of previously undiscovered soil or groundwater contamination (e.g., stained soil, odorous groundwater) is encountered during excavation and dewatering activities, the SJCEHD shall be notified. Any contaminated areas shall be remediated in accordance with recommendations made by SJCEHD; RWQCB; DTSC; or other appropriate federal, state, or local regulatory agencies. ○ Before demolition of any on-site buildings, the Project

Impact	Mitigation Measures (MMs) to Reduce Impacts to Less than Significant
	<p>applicant shall have a qualified consultant investigate whether any of these buildings contain asbestos-containing materials and lead that could become friable or mobile during demolition activities. If found, the asbestos-containing materials and lead shall be removed by an accredited inspector in accordance with the Environmental Protection Agency (EPA) and California Occupational Safety and Health Administration (Cal/OSHA) standards. In addition, all activities (construction or demolition) in the vicinity of these materials shall comply with Cal/OSHA asbestos and lead worker construction standards. The asbestos-containing materials and lead shall be properly disposed of at an appropriate off-site disposal facility.</p>
G. PUBLIC SERVICES	
<p>4.10-a: Implementation of the proposed Project could obstruct roadways in the vicinity during construction, which could slow emergency vehicles attempting to access the area.</p>	<p>MM 4.10-a: Per City requirements, the applicant/contractor shall prepare and implement traffic control plans for construction activities that may affect road rights-of-way. The traffic control plans must follow California Department of Transportation standards and be signed by a professional engineer. Measures typically used in traffic control plans include advertising of planned lane closures, warning signage, flagmen to direct traffic flows when needed, and methods to ensure continued access by emergency vehicles. During Project construction, access to existing land uses shall be maintained at all times, with detours being utilized as necessary during road closures.</p>
H. TERRITORIAL BIOLOGY	
<p>4.14-b: Loss and disturbance of aquatic and riparian habitats associated with Project activities during all phases could result in loss of special-status plants.</p>	<p>MM 4.14-b. The following is a summary and clarification of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) incidental take avoidance and minimization measures for special-status plants:</p> <ul style="list-style-type: none"> ○ Before Project implementation, surveys for the special-status plants listed in Table 4.14-1 of the SEIR shall be conducted by a qualified botanist at the appropriate time of year when the target species would be in flower or otherwise clearly identifiable. Because all of the target special-status plants are associated with wetland and riparian habitats, the survey can focus on these habitats; or ○ If no special-status plants are found during focused surveys, the findings shall be documented in a letter report to the regulatory agencies, and no further mitigation will be required. If special-status plants are found, mitigation measures will be implemented as detailed in the MMRP.

Impact	Mitigation Measures (MMs) to Reduce Impacts to Less than Significant
<p>4.14-c: Loss and disturbance of areas supporting natural vegetation during Phases 1 and 2 could result in loss of blue elderberry shrubs, which provide habitat for the valley elderberry longhorn beetle.</p>	<p>Measure 4.14-c. The following is a summary and clarification of SJMSCP incidental take avoidance and minimization measures for the valley elderberry longhorn beetle (VELB):</p> <ul style="list-style-type: none"> ○ Before Project construction, a survey for elderberry shrubs shall be conducted where elderberries could occur within 50 feet of construction areas, including the banks of the San Joaquin River, the PCIP Area and the PCC Area. ○ For all shrubs that are to be retained on the Project site, a setback of 20 feet from the dripline of each elderberry bush found during the survey shall be established. ○ Brightly colored flags or fencing shall be used to demarcate the 20-foot setback area and shall be maintained until Project construction in the vicinity is complete. ○ For all shrubs without evidence of VELB exit holes that cannot be retained on the Project site, all stems of 1 inch or greater in diameter at ground level shall be counted. Compensation for removal of these stems shall be provided in SJMSCP preserves as provided in SJMSCP Section 5.5.4(B). ○ All shrubs with evidence of VELB exit holes or other evidence of VELB occupation that cannot be retained in the Project area shall be transplanted to VELB mitigation sites during the dormant period for elderberry shrubs (November 1 to February 15). For elderberry shrubs displaying evidence of VELB occupation that cannot be transplanted, compensation for removal of shrubs shall be as provided, in accordance with SJMSCP Section 5.5.4(C).
<p>4.14-e: Suitable aquatic habitat for western pond turtle would be lost or disturbed as a result of Project activities during Phases 1 and 2.</p>	<p>MM 4.14-e. The following measures are designed to minimize potential loss of western pond turtles:</p> <ul style="list-style-type: none"> ○ During dewatering and fill of the pond in the RID Area, a qualified biologist shall be present onsite to search for western pond turtles. If no pond turtles are observed, no further mitigation is necessary. ○ If pond turtles are found, they shall be relocated by the biologist to the nearest suitable aquatic habitat in Paradise Cut.
<p>4.14-f: Suitable Swainson's hawk foraging habitat would be lost, and loss of active nests could occur as a result of Project activities during all phases.</p>	<p>MM 4.14-f. The City has obtained a California Endangered Species Act Management Authorization from CDFG for the WLSP (1996) to offset the impacts on the Swainson's hawk from development of West Lathrop. The management authorization is dependent on implementation of the WLSP habitat management agreement for Swainson's hawk (Sycamore Environmental Consultants 1995). However,</p>

Impact	Mitigation Measures (MMs) to Reduce Impacts to Less than Significant
	<p>because the Project proponent would seek coverage under the SJMSCP, it is anticipated that the SJMSCP would be the mechanism used to mitigate impacts on the Swainson's hawk from the proposed Project. As an alternative, the existing management authorization could be used. Details of both sets of measures can be found in the MMRP.</p>
<p>4.14-h: Suitable burrowing owl foraging habitat would be lost and potential and active burrows could be removed as a result of Project activities during all phases.</p>	<p>MM 4.14-h. The following is a summary and clarification of SJMSCP incidental take avoidance and minimization measures for burrowing owl:</p> <ul style="list-style-type: none"> ○ Burrowing owls may be discouraged from entering or occupying construction areas by discouraging the presence of ground squirrels. To accomplish this, the Project proponent could prevent ground squirrels from occupying the Project site by employing one of several methods outlined in Section 5.2.4.15 of the SJMSCP. These include retention of tall vegetation, regular disking of the site, or use of chemicals or traps to kill ground squirrels. ○ Preconstruction surveys for burrowing owls shall be conducted within 75 meters of areas of Project activity in locations with potential burrow habitat, including field edges, roadsides, levees, and fallow fields. Actively fanned agricultural fields and regularly disked or graded fields do not provide suitable burrow sites and need not be surveyed. The survey shall be conducted within 1 week before the beginning of construction. If burrowing owls are found, the specific measures detailed in the MMRP shall be implemented.
<p>4.14-I: Cooper's hawk and white-tailed kite nests could be lost as a result of Project construction during all phases.</p>	<p>Measure 4.14-I. The following is a summary and clarification of SJMSCP incidental take avoidance and minimization measures for the white-tailed kite and Cooper's hawk:</p> <ul style="list-style-type: none"> ○ If Project activity would occur during the raptor nesting season (February 15 through September 15), preconstruction surveys shall be conducted during the nesting season in suitable nesting habitat within 100 feet of areas of Project activity. Suitable nesting habitat for both species is present in the PCIP Area and in riparian patches adjacent to the San Joaquin River and in the PCC Area. The survey shall be conducted within 1 week before the beginning of construction or tree removal. ○ A setback of 100 feet from nesting areas shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the

Impact	Mitigation Measures (MMs) to Reduce Impacts to Less than Significant
	<p>presence of nests that are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.</p>
<p>4.14-o: Red-tailed hawk, red-shouldered hawk, and great-horned owl nests could be lost as a result of Project activities during all three Project phases.</p>	<p>MM 4.14-o. The following measures are designed to avoid loss of common tree-nesting raptors:</p> <ul style="list-style-type: none"> ○ If Project activity would occur during the raptor nesting season (February 15 through September 15), preconstruction surveys shall be conducted during the nesting season in suitable nesting habitat within 100 feet of areas of Project activity. Large trees throughout the Project area provide suitable habitat. The survey shall be conducted within 1 week before the beginning of construction or tree removal. ○ A setback of 100 feet from nesting areas shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests that are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.
<p>4.14-r: Project construction during all phases would result in loss, disturbance, and/or alteration of jurisdictional waters and riparian habitat.</p>	<p>MM 4.14-o. The following measures are designed to minimize and mitigate impacts on jurisdictional waters of the United States and riparian habitat:</p> <ul style="list-style-type: none"> ○ Before Project implementation, a determination of waters of the United States, including jurisdictional wetlands and riparian habitat, that would be affected by the proposed Project shall be made by qualified biologists through the formal Section 404 wetland delineation process. This is expected to be completed through reverification of the existing wetland delineation. ○ Authorization for fill of the agricultural ditch and pond, alteration of waters of the United States, and disturbance of riparian habitat shall be secured from the U.S. Army Corps of Engineers (ACOE) via the Section 404 permitting process. ○ A CDFG Streambed Alteration Agreement is also expected to be required for work within existing levees along the San Joaquin River, Old River, and Paradise Cut. ○ The acreage of jurisdictional habitat removed shall be replaced or restored/enhanced on a "no-net-loss" basis in accordance with USACE and CDFG regulations. Habitat restoration, enhancement, and/or replacement shall be at a location and by methods agreeable to USACE and

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	<p>CDFG. It is anticipated that restoration and enhancement activities in Paradise Cut and creation of the proposed back bays would be sufficient to replace lost habitat.</p> <ul style="list-style-type: none"> ○ Measures to minimize erosion and runoff into drainage channels shall be included in all drainage plans. Appropriate runoff controls such as berms, storm gates, detention basins, overflow collection areas, filtration systems, and sediment traps shall be implemented to control siltation and the potential discharge of pollutants.
I. FISHERIES	
<p>4.15-c: Bridge and utility crossing construction activities on the San Joaquin River could result in streambed and riverbank disturbance, sediment input, and contaminant input, all of which could substantially adversely affect fish species in the immediate area.</p>	<p>MM 4.15-c: The following shall be implemented:</p> <ul style="list-style-type: none"> ○ MM 4.15-b, which requires that an SWPPP is implemented during construction activities, all water quality requirements included in various agency permits are adhered to, and in-water work shall be restricted to periods when potential impacts on special-status fish species would be minimized. In addition, the SWPPP used for the directional boring of the 4-inch natural gas pipeline under the San Joaquin River shall include specific measures to avoid, minimize, and, if necessary, clean up bentonite/ drilling slurry releases into the river. Measures could include monitoring drilling slurry pressures and halting drilling if pressures drop significantly; monitoring the river for bentonite plumes; avoiding drilling at night; and having containment booms, vacuum trucks, and other containment and cleanup equipment onsite during drilling; and ○ MM 4.8-e (See above under Hydrology and Water Quality).
J. CULTURAL RESOURCES	
<p>4.16-d: Construction of the proposed Project may affect as yet undiscovered or unrecorded archaeological sites.</p>	<p>MM 4.16-d: Before the initiation of construction or ground-disturbing activities associated with the proposed Project, all construction personnel shall be alerted to the possibility of buried cultural resources. If artifacts or unusual amounts of stone, bone, or shell are uncovered during construction activities, work within 50 feet of the specific construction site at which the suspected resources have been uncovered shall be suspended, and the City of Lathrop Community Development Department/ Planning Division shall be immediately contacted. At that time, the City shall retain a professional archaeological consultant. The archaeologist shall conduct a field investigation of the specific site and recommend mitigation deemed necessary for the protection or recovery of any cultural resources concluded by the archaeologist to represent significant or potentially significant</p>

Impact	Mitigation Measures (MMs) to Reduce Impacts to Less than Significant
	resources as defined by CEQA. The City shall implement the mitigation prior to the resumption of construction activities at the construction site.
<p>4.16-e: Project-related construction activities could affect as yet undiscovered or unrecorded human remains.</p>	<p>Measure 4.16-e: If human remains are discovered at any Project construction sites during any phase of construction, work within 50 feet of the remains shall be suspended immediately, and the City of Lathrop Community Development Department/ Planning Division and the county coroner shall be immediately notified. If the remains are determined by the county coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The City shall also retain a professional archaeological consultant. The archaeologist shall conduct a field investigation of the specific site and consult with the Most Likely Descendant identified by the NAHC. As necessary, the archaeological consultant may provide professional assistance to the Most Likely Descendant including the excavation and removal of the human remains. The City shall implement any mitigation prior to the resumption of activities at the site where the remains were discovered.</p>

II. SIGNIFICANT AND UNAVOIDABLE IMPACTS

The SEIR identified a number of significant and unavoidable impacts related to Traffic, Air Quality, Noise, Public Utilities, and Agricultural Resources that could result from the Project: the proposed residential/commercial development and associated activities may worsen traffic conditions on nearby roads and highways; create substantial diesel, reactive organic gases (ROGs), and oxides of nitrogen (NOx) air emissions; expose sensitive receptors to increased noise; create odor and surface water impacts related to expanding water recycling plant operations; and convert agricultural lands, some of which are under Williamson Act contracts, to non-agricultural uses.

The City, as lead agency, determined that sufficient mitigation is not practicable to reduce the impacts in these resource areas to a less than significant level, and even after implementation of all feasible mitigation measures, there will be or could be an unavoidable significant adverse impact due to the Project. Because these impacts are within the responsibility and jurisdiction of the City, the City adopted an SOC (see Attachment A).

The significant and unavoidable impacts of the Project related to Traffic, Air Quality, Noise, Public Utilities, and Agricultural Resources all result from components of the Project such as the new mixed-use residential/commercial development that are outside the jurisdiction and approval authority of the CSLC.