The City of Lodi White Slough Water Pollution Control Facility (WPCF) Phase 3 Improvements Project 2007 Draft Initial Study/ Mitigated Negative Declaration

File No.: 07-ND-01

Prepared for

City of Lodi Public Works Department

January 2007

WEST YOST ASSOCIATES
Consulting Engineers

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SECTION I. ENVIRONMENTAL CHECKLIST FORM

1. **Project title**: The City of Lodi White Slough Water Pollution Control Facility (WPCF) Phase 3 Improvements Project 2007 Initial Study/Mitigated Negative Declaration
2. **Lead agency name and address:**
   City of Lodi-Community Development Department
   P.O. Box 3006
   Lodi, CA 95241
3. **Contact person and phone number**:
   Randy Hatch, Community Development Director
   Peter Pirnejad, Planning Manager
   (209) 333-6711
4. **Project location:**
   The White Slough WPCF is located in a primarily agricultural area adjacent to Interstate 5, approximately 6.5 miles west-southwest of the City of Lodi, San Joaquin County, California
   (**Figure 1 – Location Map**).
5. **Project sponsor's name and address:**
   City of Lodi Public Works Department
   Richard Prima, Public Works Director
   P.O. Box 3006
   Lodi, CA 95241
   (209) 333-6759
6. **General Plan designation: Public**
7. **Zoning: Public**
8. **Surrounding land uses and setting:** Lands surrounding the project area are generally used for agricultural uses. Pasture lands are located to the north, south and west of the project site. Interstate 5 is located to the east of the project site. Residences in proximity to the project area vicinity are associated with agricultural uses.
9. **Other public agencies whose approval is required:**

   City of Lodi

   The City of Lodi is preparing the Initial Study/Mitigated Negative Declaration for the proposed project and would obtain construction contracts.

   Central Valley Regional Water Quality Control Board (RWQCB)

   The owner or operator of any facility that is currently discharging waste into any surface water of the state must follow Waste Discharge Requirements (WDRs) obtained from the Central Valley RWQCB. If changes in the quantity or quality of a discharge or a change in the treatment process are proposed, amended WDRs are required.

United States Fish and Wildlife Service – Compliance with the Federal Endangered Species Act

Construction activities would not directly or indirectly adversely affect a federally listed species or it's habitat (see Biological Resources section of this document for additional information). Therefore, the proposed project would not be required to obtain Section 7 clearance from the U.S. Fish and Wildlife Service prior to SRF loan commitment.

State Historic Preservation Office – Compliance with the National Historic Preservation Act

There are no prehistoric or historic archaeological resources, historic properties, or resources of value to local cultural groups within the project area. Therefore, the proposed project would not be required to demonstrate to the satisfaction of the State Historic Preservation Office that the project complies with Section 106 of the National Historic Preservation Act (see Cultural Resources section of this document for additional information).

SECTION II. PROJECT DESCRIPTION

PROJECT LOCATION

The White Slough Water Pollution Control Facility (WPCF) is located in a primarily agricultural area adjacent to Interstate Highway 5 approximately 6.5 miles west-southwest of the City of Lodi, San Joaquin County, California. The address of the WPCF is 12751 North Thornton Road, Lodi, CA. The WPCF's location is depicted on Figure 1.

PROJECT BACKGROUND

The original treatment facility was built in 1966. Since then several upgrade and capacity expansion projects have been completed. The WPCF currently treats approximately 6.3 millions gallon per day (mgd) (average dry weather flow) of municipal wastewater from the City.

The City owns 1,040 acres of land surrounding the WPCF, 790 of which is irrigated with wastewater during the irrigation season. During the non-irrigation season municipal effluent is discharged to Dredger Cut, a dead end slough of the Sacramento-San Joaquin Delta (Delta).

In addition to domestic wastewater treatment, the facility also handles industrial wastewater, primarily from a local cannery. During the summer months industrial flows are blended with municipal flows and directed to the City's fields for agricultural reuse. During the remainder of the year, industrial flows are directed to the onsite storage ponds, where they are stored until being land applied the following year.

EXISTING TREATMENT PROCESS

The existing municipal treatment process train consists of the following units (depicted on Figure 2):

- Headworks containing comminutors (grinders), detritor tanks for grit removal, three municipal influent pumps, (and two industrial influent pumps);
- Five primary sedimentation tanks;
- Four activated sludge aeration basins;
- Two secondary clarifiers;
- A tertiary filter pump station;
- Chemical feed equipment;
- Four tertiary filters;
- Ultra violet (UV) light disinfection with two channels;
- Two dissolved air floatation thickening (DAFT) units;
- Three anaerobic sludge digesters; and
- A biosolids storage pond.

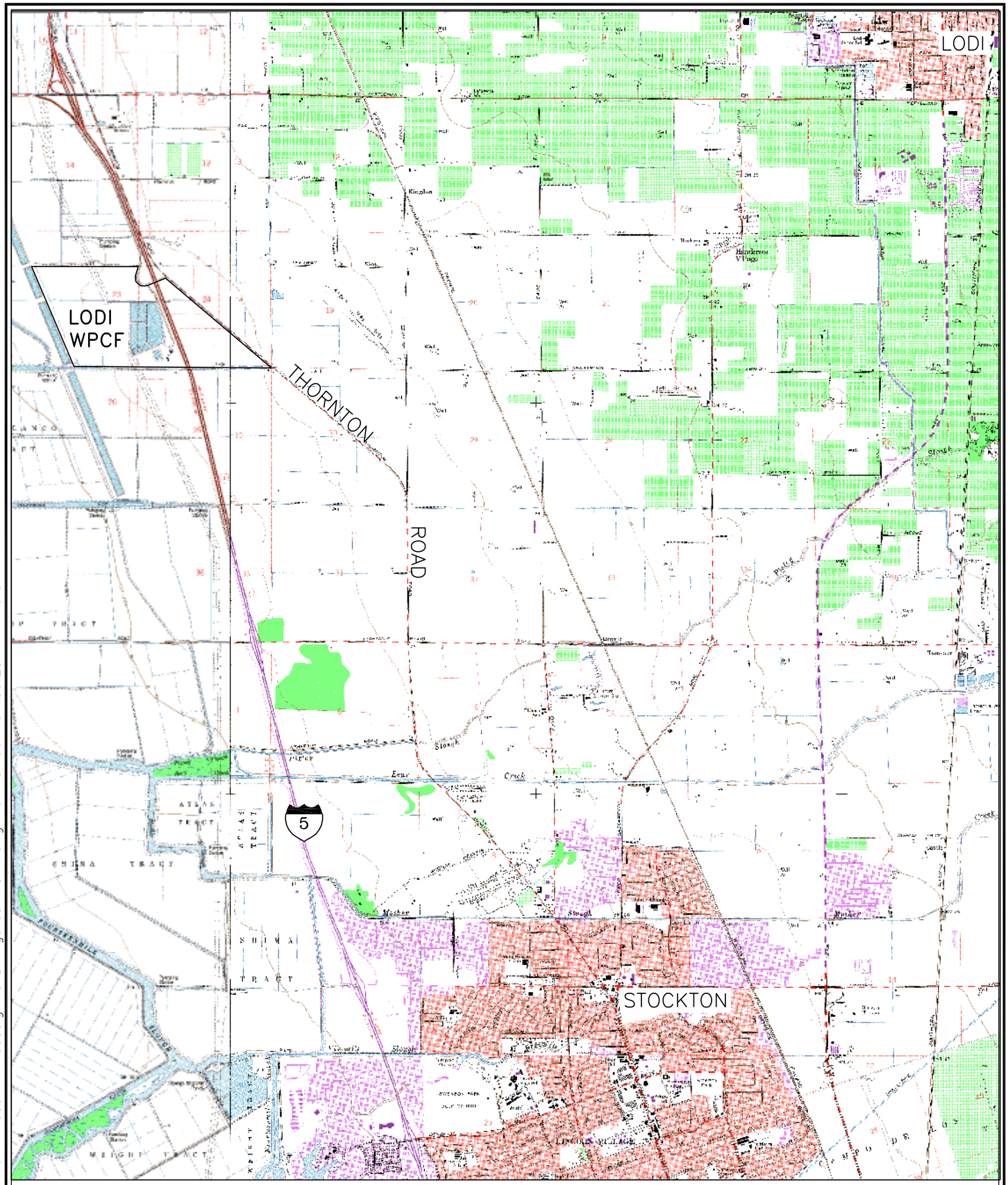

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Figure 1

City of Lodi
White Slough WPCF
LOCATION MAP

WEST YOST ASSOCIATES
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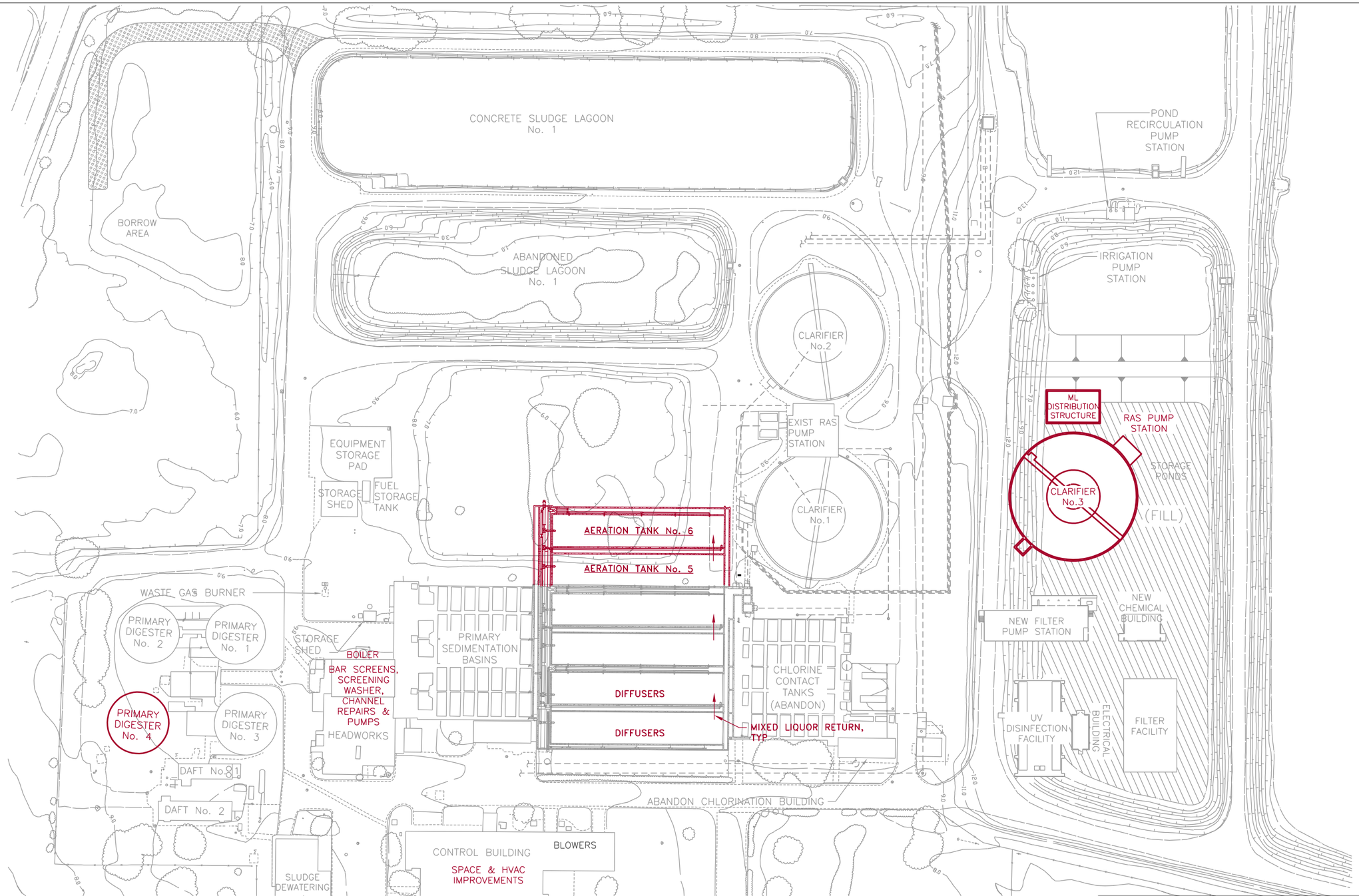

LEGEND

IMPROVEMENTS PROJECT 2007

0 20 40
SCALE IN FEET

Figure 2

City of Lodi
White Slough WPCF
PHASE 3 IMPROVEMENTS
PROJECT 2007

WEST YOST ASSOCIATES
Consulting Engineers

N:\Clients\213 Lodi\00-01-07 Phase 1 Predesign\CAD\Figures\FIG 2.dwg 9-15-06 01:59:50 PM rbrown

Appurtenant facilities include:

- A control/blower building;
- Plant piping; and
- Electrical and control facilities, including a standby power generator.
- Chlorine building/3W pump station
- NCPA/Mosquito District pump stations

Municipal treatment includes liquid and solids stream processes. The plant's headworks, primary sedimentation tanks, aeration basins, secondary clarifiers, tertiary pump station, chemical feed equipment, tertiary filters, and UV disinfection comprise the liquid stream process, and the RAS/WAS pump stations, primary sludge pump station, DAFTs, digesters, and biosolids storage ponds comprise the solids handling processes.

The industrial process train consists of the following:

- A comminutor and two industrial influent pumps in the headworks;
- Recirculation and tailwater pumps;
- An irrigation pump station; and
- Three equalization and four storage ponds.

With the exception of the industrial influent pumps, this project consists of improvements to the municipal treatment process and appurtenant facilities.

PROJECT OVERVIEW AND OBJECTIVES

The existing municipal treatment process train was originally designed to treat an average dry weather flow of 8.5 mgd, however the process is not capable of satisfying current regulatory requirements at this flow rate. Objectives of this project are to construct improvements necessary to: (1) meet current and anticipated regulatory requirements; and (2) improve treatment process reliability. After the Phase 3 Improvements are in place, the WPCF will be capable of treating approximately 8.5 millions gallon per day (mgd) (average dry weather flow) of municipal wastewater from the City. Improvements necessary to accomplish these objectives are described below.

PROJECT ELEMENTS

Headworks Improvements

Municipal and industrial flow streams enter the headworks in separate channels. The municipal flow rate is measures by a Parshall flume. Two comminutors (grinders) reduce the size of solids in municipal wastewater, grit and sand is removed from the wastewater in two detritor tanks, and then three pumps lift the municipal wastewater into the primary sedimentation tanks.

The industrial flow rate is also measures by a Parshall flume. A comminutor (grinder) reduces the size of solids in industrial wastewater, and then the industrial wastewater is pumped to either the City's fields for agricultural reuse or to onsite storage ponds.

This project will:

- Replace the two municipal communiters with two mechanical bar screens and a screenings washer. This will remove rags, plastic, and other debris that currently clog downstream treatment processes and accumulate in the digesters.
- Repair concrete channels in the headworks that have deteriorated due to the corrosive nature of the influent wastewater.
- Replace two of the three domestic pumps with new pumps to provide a pumping system with the capacity to pump peak flows with the largest unit out of service.
- Replace one of the industrial pumps with one of the existing domestic pumps, and install a third smaller industrial pump. This will allow the smaller pump to be used during non-canning season, and will correct the current situation where the pumps are not capable of matching influent flows and cycle off and on too frequently.

Aeration Basin Area Improvements

After primary treatment, wastewater flows to four aeration basins where the wastewater is biologically treated to reduce the biochemical oxygen demand (BOD) and provide nitrification (oxidation of ammonia to nitrate.)

This project will:

- Construct two additional aeration basins. The existing process was not designed to provide nitrification, and additional basins are necessary to achieve nitrification and satisfy regulatory requirements.
- Replace existing air diffusers in existing aeration basins 1 and 2. The new diffusers are more efficient than the existing diffusers, and will aid in providing nitrification.
- Install new mixers in existing aeration basins 1 and 2, and aerations basins 5 and 6.
- Install pumps to recycle mixed liquor from the end to the beginning of each aeration train. This will aid in achieving denitrification (reduction of nitrate to nitrogen gas.)
- Install pumps to recycle mixed liquor from the end to an anoxic zone at the beginning of each aeration train. An anoxic zone is an area in which the wastewater is without dissolved oxygen and where denitrification (reduction of nitrate to nitrogen gas) can occur.
- Construct a foam skimming and pumping structure. This will allow problematic hydrophilic organisms to be removed from the aeration basins.
- Install new flumes to ensure equal flow distribution between the aeration basins.

Secondary Clarifier Area Improvements

The WPCF includes two circular secondary clarifiers that receive water from the aeration basins and hold it to allow microorganisms to settle from the treated water.

This project will:

- Construct an additional secondary clarifier. The existing clarifiers lack redundancy, and at peak flow rates the effluent water quality is significantly degraded with one unit out of service.
- Construct a new mixed liquor splitter box to split flow equally between the three secondary clarifiers.
- Construct a new secondary clarifier with a new return activated sludge (RAS) pump station to return RAS to the aeration basins.
- Construct piping to convey water and RAS between the aeration basins and clarifiers, and treated water to the tertiary treatment facilities.
- Re-route existing RAS pump station discharge piping to connect to new RAS pump station discharge piping. Connect the new RAS discharge piping to the existing WAS pump station for wasting.

3W Pump Station

Currently, three 3W (treated wastewater) pumps are used to provide spray water to the aeration basins, secondary clarifiers, and primary clarifiers. Water is also sent to the DAFT, as needed.

This project will:

- Replace the existing 3W pumps with three new 3W pumps. The new pumps will be capable of meeting the higher system demands and increased pressure requirements. Added demands include additional sprays at the aeration basins and secondary clarifiers, new mechanical screens, and a new washers/compactor.
- Install additional 3W piping to provide a larger diameter 3W main and to provide a looped 3W system.
- Install a new flow meter on the 3W discharge pipe.

Digester Area Improvements

Biosolids that settle in the primary clarifiers and that are wasted from the biological treatment process are biologically digested by organisms in three anaerobic digesters. The digestion process stabilizes the biosolids. Gas that is produced in the digestion process is used to heat two boilers, and the resulting hot water is used to heat both the digesters and the operations building.

This project will:

- Construct a fourth anaerobic digester. The fourth digester is needed to provide additional capacity and to allow one digester to be taken out of service for maintenance and cleaning.
- Construct a third boiler. Additional boiler capacity is needed to heat the new digester.

Sludge Lagoon Area Improvements

Currently, supernatant from the biosolids lagoon is sent to the industrial side of the influent pump station. The industrial pumps are operating year-round in order to pump supernatant to the ponds.

This project will:

- Provide new gates in the biosolids storage lagoon outlet structure.
- Construct new supernatant pump station and diversion manhole to convey the pond supernatant to the primary sedimentation tanks. This allows the industrial pumps to pump only industrial flow and prevents supernatant from entering the industrial process flow stream.

Control Building Improvements

The control building houses the plant operations staff, plant process monitoring room, laboratory, lunch room/meeting room, men's and women's showers/locker rooms, blower room, and miscellaneous storage rooms.

This project will:

- Convert an existing storage/laundry room into a new women's restroom/shower. Existing facilities are inadequate for the current number of staff. This will provide additional lockers, changing space, countertops and sink space.
- Relocate the existing washer/dryer into the existing women's restroom.
- Modify the men's restroom/shower to conform to ADA requirements.
- Install new partitions, cabinets, countertops, file cabinets, and furniture in the plant process monitoring room. This will allow plant staff to work more efficiently, and provide space for additional staff to work.
- Replace the deteriorated ceiling in the laboratory.
- Replace the building's existing HVAC system, which is not functioning adequately.
- Replace the existing concrete access ramp and stairs into the building to conform to ADA requirements.

All improvements associated with the proposed project would occur on previously disturbed lands.

Project Objectives

The proposed White Slough WPCF Phase 3 Improvements Project 2007 is intended to meet the following primary objectives:

- To comply with the current and anticipated WDRs issued by the Central Valley RWQCB;
- To site and operate new facilities to minimize adverse environmental effect;
- To maximize operational flexibility, reliability, efficiency and safety; and
- To achieve the above objectives in a cost-effective manner that limits system capital costs, operations and maintenance costs, and user rates to the extent possible.

The proposed project intends to meet these objectives while avoiding, minimizing or mitigating impacts to environmental and community resources.

Project Construction

Construction for the proposed project is expected to take approximately 21 months, and begin in June 2007 and be completed by February 2008. On a daily basis construction would typically take place during weekdays usually between the hours of 6:00 am and 5:00 pm. The WPCF is expected to be fully operational during construction. Construction work for the proposed project would be performed by a contractor(s) selected by the City of Lodi. Types of construction activity typically involved with the proposed project would include earthwork, structural steel and reinforced concrete work, electrical/instrumentation work, and installation of mechanical equipment and piping.

The contractor(s) would obtain all required licenses, permits, and approvals necessary for performance of the work. The contractor would be required to comply with all applicable occupational health and safety standards, rules, and regulations. Additionally, specific requirements of, or restrictions upon, construction activities would be included in accordance with recommended mitigation measures. Construction would be conducted according to City Standard Specifications, in addition to the following special environmental provisions:

1. Areas disturbed during construction shall be revegetated.
2. The existing Hazardous Materials Management Plan (HMMP) shall be updated to address the potential use of additional hazardous materials or the creation of new hazards as a result of proposed Phase 3 improvements. This plan shall include specifications concerning the proper handling and storage of potentially hazardous materials, as well as proper procedures for cleaning up and reporting of spills.
3. In the event hazardous or contaminated materials are encountered in proposed improvement areas, the Contractor shall stop work immediately, contact the Engineer and schedule his operations to work elsewhere on the site, if possible. The City shall be responsible for handling and removal of hazardous material or may request that the Contractor be made available, through contract change order, to provide additional services as needed for the completion of the work. Additional services may consist of retaining subcontractors who possess a California license for hazardous substance removal and remedial actions.

A central staging site, including a temporary office trailer and a parking area for construction workers and equipment, would be needed for the duration of construction. The staging site is located south of the new stand-by generator.

Traffic Diversion

Construction activities will not require any public road closures. A minor increase in traffic along Thornton Road, North Interstate 5 Frontage Road, and surrounding two-lane roads that provide access to the project area would result from the trucking of construction materials and the commuter trips of construction workers during the approximately 21 months of construction. However, current traffic volumes along these roads are low, and construction traffic would not cause traffic delays in the project area. Therefore, a traffic management plan would not be required for the proposed project. Public safety and emergency services would be kept informed of construction activities for use in planning emergency response routing, if necessary.

Fill Material/Excavated Material

Excavated soils would not be removed from the site. Soil could be imported to the project site for use as engineered fill for filling a portion of an existing pond to create a site for improvements. It is anticipated that fill material would be used from a borrow area to the south of proposed improvements. The proposed borrow area has been previously disturbed. Soils would not be allowed to drain into any water bodies including the Sacramento River, the San Joaquin River, Dredger Cut, White Slough, Bishop Cut, Disappointment Slough, Fourteen Mile Slough, Honker Cut, unnamed drainages, or wetland habitat.

Other Construction Waste

Debris from construction activities would not be allowed to drain into any water bodies including the Sacramento River, the San Joaquin River, Dredger Cut, White Slough, Bishop Cut, Disappointment Slough, Fourteen Mile Slough, Honker Cut, unnamed drainages, or wetland habitat.

OPERATIONS

The White Slough WPCF would continue to be operated by City of Lodi personnel. As required by law, operators would be licensed by the SWRCB. Typical WPCF operations involve routing flows; starting, stopping, and adjusting pumps, blowers and other equipment; hosing down basins and equipment; reading flow meters and taking water samples for testing; performing laboratory tests and documenting results; and maintaining and repairing equipment.

PROJECT ALTERNATIVES

Alternative Treatment Processes

There are other types of treatment processes that could be employed to meet the project objectives. For example, sequencing batch reactors (SBRs) or membrane bioreactors (MBRs) could be added to the facility. All alternative treatment processes would require construction activities and would result in similar environmental impacts as compared to the proposed project. Some alternative processes would have higher electrical power requirements than the proposed

project. Additionally, the construction of alternative treatment processes would result in two separate secondary treatment processes that would each have it's own operational characteristics and would make the facility more complicated to operate and could reduce overall reliability.

Abandon Facility and Connect to the City of Stockton

This alternative would entail constructing a pipeline to the City of Stockton and connect to Stockton's collection/treatment system. This alternative was described in the "Joint City of Stockton, City of Lodi Effluent Disposal and Reuse Study", prepared in October 2004 by West Yost Associates. The alternative would be significantly more expensive than the proposed project and presents a number of institutional difficulties. It would also involve significant construction activities, both on and offsite, with associated environmental impacts.

No Project Alternative

Under the No Project Alternative, proposed Phase 3 improvements would not occur. Although there are no immediate costs or environmental impacts from this alternative, it would not meet the objectives of the proposed project. This alternative would not comply with the WDRs issued by the Central Valley RWQCB.

Recommended Alternative

Because the "No Project Alternative" would not meet the objectives of the WPCF, and the "Alternative Treatment Processes" and the "Abandon Facility and Connect to the City of Stockton" are not environmentally superior to the proposed project and have other disadvantages, the proposed action is the recommended alternative for the Phase 3 Improvements at the White Slough WPCF.

SECTION III. – ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist in Section V. Mitigation measures described in Section V are incorporated into the project and the project description. These mitigation measures are described on pages 5-12, 5-15, 5-39, and 5-40.

☐ Aesthetics	☐ Agricultural Resources	☐ Air Quality
☑ Biological Resources	☑ Cultural Resources	☐ Geology/Soils
☐ Hazards & Hazardous Materials	☐ Hydrology/Water Quality	☐ Land Use/Planning
☐ Mineral Resources	☐ Noise	☐ Population/Housing
☐ Public Services	☐ Recreation	☐ Transportation/Traffic
☐ Utilities/Service Systems	☑ Mandatory Findings of Significance	

SECTION IV. – DETERMINATION

On the basis of the initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☑ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature	Date
Randy Hatch	City of Lodi
Printed Name	For

SECTION V. – ENVIRONMENTAL CHECKLIST AND DISCUSSION

I. AESTHETICS. Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Affect a substantial adverse affect on a scenic vista?	☐	☐	☐	☑
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	☐	☐	☐	☑
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☑	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☑	☐

ENVIRONMENTAL SETTING

The view of the area surrounding the WPCF is one of agricultural fields with scattered agricultural and residential buildings. The visual character is rural, with Interstate 5 running north to south, adjacent to the project site. On a clear day, the Coast Range and Mount Diablo can be seen in the distance to the west (City of Lodi 1988).

The WPCF is viewed mainly by motorists traveling south on Interstate 5. A row of eucalyptus and conifer trees perpendicular to Interstate 5 is the most visible feature of the project site from a distance. As motorists near the facility, the treatment ponds and facility structures come into view. A greenscape buffer, consisting of more eucalyptus and conifer trees and grass, partially obscures the view of the facility as motorists pass (City of Lodi 1988).

Nighttime lighting for the 24-hour operation of the facility is currently present on the site.

ANSWERS TO CHECKLIST QUESTIONS

a) Have a substantial adverse effect on a scenic vista?

Interstate 5 is not designated as a scenic highway, and no scenic vistas would be impacted as a result of the proposed project. The area is already developed with a WPCF structures. There would be no impact.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

The proposed project would not damage any scenic resources, as the proposed project is not located within the vicinity of a state scenic highway and the site is developed with minimal scenic value. There would be no impact.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Phase 3 improvements would result in new structures at the WPCF. However, the proposed project would not have an adverse effect on the existing visual character or quality of the site and its surroundings. These new facilities would be screened by existing greenscape buffers (i.e., northern and eastern screening with eucalyptus and conifer trees), but could be potentially visible from Interstate 5. However, these structures would be designed to blend with the existing buildings, with no major departure in architectural design, resulting in less-than-significant visual impact. Additionally, as discussed under Project Construction in Section 1.0, areas that are disturbed during construction would be revegetated. Implementation of this special environmental provisions as part of the proposed project would ensure that visual impacts would be less-than-significant.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

As previously described, the existing WPCF currently includes nighttime lighting facilities for 24-hour operation of the plant. Construction of the proposed improvements may require minimal additional nighttime lighting facilities. As proposed nighttime lighting facilities would not significantly impact the existing nighttime lighting environment, potential impacts on surrounding residences and motorists on Interstate 5 are considered less-than-significant.

MITIGATION MEASURES

No mitigation is required.

FINDINGS

The project would not result in significant aesthetic impacts.

II. AGRICULTURAL RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to a non-agricultural use?	☐	☐	☐	☑
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☑
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	☐	☐	☐	☑

ENVIRONMENTAL SETTING

Lands surrounding the White Slough WPCF project area are generally used for agricultural uses. Pasture lands are located to the north, south and west of the project site. Interstate 5 is located to the east of the project site. Residences in proximity to the project area vicinity are associated with agricultural uses.

ANSWERS TO CHECKLIST QUESTIONS

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to a non-agricultural use?

The project site is not zoned for agricultural purposes and is currently occupied by the White Slough WPCF. The area is zoned "public" and no impact would occur.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

The proposed project would be constructed on already-disturbed lands contained within the existing WPCF and would not impact Prime Farmlands or lands designated under the Williamson Act. The site is not zoned for agricultural production and would not affect agricultural operations. Therefore, the proposed project would not affect agricultural resources. No impact would result.

c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?

The project site is not zoned for agricultural purposes, and the proposed project would not involve changes that could result in the conversion of farmland to a non-agricultural use. No impact would result.

MITIGATION MEASURES

No mitigation is required.

FINDINGS

The project would not result in adverse impacts to agricultural resources.

III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☑
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☑	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☑	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☑	☐
e) Create objectionable odors affecting a substantial number or people?	☐	☐	☑	☐

ENVIRONMENTAL SETTING

The WPCF is located in the northern part of the San Joaquin Valley Air Basin and within the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD), which regulates air quality in the San Joaquin Valley. The pollution potential of the San Joaquin Valley is very high. Surrounding elevated terrain in conjunction with temperature inversions frequently restrict lateral and vertical dilution of pollutants. Abundant sunshine and warm temperatures in summer are ideal conditions for the formation of photochemical oxidant, and the Valley is a frequent scene of photochemical pollution.

Both the U. S. Environmental Protection Agency and the California Air Resources Board have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants that represent safe levels that avoid specific adverse health effects associated with each pollutant. The federal Clean Air Act and the California Clean Air Act of 1988 require that the California Air Resources Board, based on air quality monitoring data, designate portions of the state where the federal or state ambient air quality standards are not met as nonattainment areas. Because of the differences between the national and state standards, the designation of nonattainment areas is different under the federal and state legislation.

ANSWERS TO CHECKLIST QUESTIONS

a) Conflict with or obstruct implementation of the applicable air quality plan?

The White Slough WPCF is within the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD), which regulates air quality in the San Joaquin Valley. The SJVAPCD has prepared and implements specific plans to meet the applicable laws, regulations and programs, including the 1991 Air Quality Attainment Plan (AQAP). In addition, the SJVAPCD has developed the Guide for Assessing and Mitigating Air Quality Impacts (Guide) to help lead agencies in the evaluating the significance of air quality impacts.

In formulating its compliance strategies, the SJVAPCD relies on planned land uses established by local general plans. When a project proposes to change planned uses assumed in an adopted plan by requesting a general plan amendment, the project may depart from the assumption used to formulate the plans of the SJVAPCD in such way that cumulative results of incremental change may hamper or prevent the SJVAPCD from achieving its goals. Land use patterns influence transportation needs, and motor vehicles are the primary source of air pollution. As stated in the Guide, projects proposed in jurisdictions with general plans that are consistent with the SJVAPCD's AQAP and projects that conform to those general plans would not create significant cumulative air quality impacts. The proposed project conforms to the City and County General Plans and would not conflict with the applicable clean air plan. No impacts would occur.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

The White Slough WPCF is within the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD), which regulates air quality in the San Joaquin Valley. The EPA designated the entire San Joaquin Valley as non-attainment for two pollutants: ozone and particle matter. On April 24, 2004, the EPA reclassified the San Joaquin Valley ozone non-attainment area from its previous severe status to "extreme" at the request of the San Joaquin Air Pollution Control District Board. On December 17, 2004, EPA took action to designate attainment and non-attainment areas under the more protective national air quality standards for fine particles or PM2.5.

Levels of PM10 in the San Joaquin Valley currently exceed California Clean Air Act standards; therefore, the area is considered a non-attainment area for this pollutant relative to the State standards. PM10 levels monitored at the Stockton-Hazelton Street ambient air quality monitoring station, the closest monitoring station with PM10 data, exceeded the State's standard at three times per year in 2003 and 2004. The standard was exceeded ten times in 2002. No exceedances of the State or federal CO standards have been recorded at any of the region's monitoring stations in the last three years. The San Joaquin Valley is currently considered a maintenance area for State and federal CO standards.

The District adopted an Ozone Attainment Demonstration Plan (2004) and a PM10 Attainment Demonstration Plan (2003). In addition, to meet California Clean Air Act requirements, the District adopted the California Clean Air Act Triennial Progress Report and Plan Revision 1997-1999, adopted in 2001 to address the California ozone standard. A broad range of actions to improve air quality are set forth in the adopted plans to reduce CO, O3 precursor emissions, and particulate matter. Generally, the State standards for these pollutants are more stringent than the national standards. Each district plan is to achieve a 5 percent annual reduction average 3 consecutive 3-year periods, in district-wide emissions of each non-attainment pollutant or its precursors. Air quality standards are exceeded primarily during meteorological conditions conducive to high pollution levels, such as cold, windless winter nights or hot, sunny summer afternoons.

The SJVAPCD significance threshold for construction dust impacts is based on the appropriateness of construction dust controls. The SJVAPCD regulates construction emissions through its Regulation VIII. Regulation VIII does not require any formal dust control plans or permits, but violations of the requirements of Regulation VIII are subject to enforcement action. The provisions of Regulation VIII pertaining to construction activities require:

- Effective dust suppression for land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill and demolition activities.
- Effective stabilization of all disturbed areas of a construction site, including storage piles, not used for seven or more days.
- Control of fugitive dust from on-site unpaved roads and off-site unpaved access roads.
- Removal of accumulations of mud or dirt at the end of the work day or once every 24 hours from public paved roads, shoulders and access ways adjacent to the site.

Construction activities would temporarily affect local air quality, causing a temporary increase in particulate dust and other pollutants, however this impact is less-than-significant.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

See discussion under Check List Item III.a. and III.b. above. For any project that does not individually have operational air quality impacts, the determination of a significant cumulative impact should be based on the evaluation of the project's consistency with the general plan and the general plan with regional air quality plan. The proposed project is consistent with the City and County General Plans, and there would be a less-than-significant cumulative air quality impact.

d) Expose sensitive receptors to substantial pollutant concentrations?

The SJVAPCD defines sensitive receptors as facilities that house or attract children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Hospitals, schools, convalescent facilities, and residential areas are examples of sensitive receptors. There are no sensitive receptors in proximity to the project site. The nearest homes are approximately 4,000 feet to the north and east. Because of the distance between the project and the nearest homes and the fact that prevailing winds carry emissions away from these receptors, construction-period impacts on sensitive receptors would be less-than-significant.

e) Create objectionable odors affecting a substantial number of people?

No increases in potential odor impacts are anticipated. There are no residential areas or other sensitive receptors within 4,000 feet (approximately ¾ mile) of the site. In addition, improvements to the WPCF headworks may slightly decrease odors and adverse impacts would be less-than-significant.

MITIGATION MEASURES

No mitigation is required.

FINDINGS

Air quality impacts would be less-than-significant.

IV. BIOLOGICAL RESOURCES. Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☑	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☑
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) Through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☑
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☑
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☑
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or State habitat conservation plan?	☐	☐	☐	☑

ENVIRONMENTAL SETTING

In order to develop lists of special-status plants and wildlife potentially occurring on the WPCF site, previous environmental documents for the WPCF were reviewed and databases were reviewed for a current species lists. The California Natural Diversity Database (CNDDB) and the U.S. Fish and Wildlife Service (USFWS) databases were searched for an approximately 10-mile radius around the project site. In addition, a site visit was conducted on December 4, 2006, by Ramona Robison and Elizabeth Hughes. The following information was compiled from the site visit and as a result of the database reviews.

Vegetation

Ground disturbance and construction activities would all take place within the existing developed area of the WPCF. Most of these areas are either graveled or paved (i.e., asphalt or concrete). The plants growing in the affected areas were ruderal and mostly non-native and included; nettle (Urtica dioica), nightshade (Solanum sp.), Mexican tea (Chenopodium ambrosioides), perennial mustard (Hirschfeldia incana), clover (Trifolium sp.), filaree (Erodium sp.), Italian ryegrass (Lolium multiflorum), fireweed (Epilobium brachycarpum), Italian thistle (Lolium multiflorum), Russian thistle (Salsola tragus), yellow starthistle (Centaurea solstitialis), milk thistle (Silybum marianum), bindweed (Convolvulus arvensis), perennial pepperweed (Lepidium latifolium), and germinating annual grasses and forbs, sow thistle (Sonchus oleraceus), cudweed (Gnaphalium sp), yellow cress (Rorippa curvisiliqua), wild radish (Raphanus sativus), and stick-seed buttercup (Ranunculus muricatus).

Trees on-site included some young willows (Salix sp.) occurred around the edge of storage ponds, Casuarina trees (Casuarina equisetifolia). A number of landscape trees are planted around the control building and the adjoining parking lot. These include golden raintree (Koelreuteria paniculata), eucalyptus (Eucalyptus sp.), birch (Betula sp.), crape myrtle (Laegerstroemia indica), sweet gum (Liquidambar styracifluva), pine (Pinus sp.), ornamental pear (Pyrus calleryana), and Chinese pistache (Pistachia chinensis). (Robinson 2006).

Wildlife

The predominant wildlife species observed at the WPCF were common bird species such as scrub jays (Aphelocoma coerulescens), American crow (Corvus brachyrhynchos), and mourning dove (Zenaida macroura). Mallard ducks (Anas platyrhynchos) were observed at the sewage ponds. Two raptor species were observed in the vicinity of the proposed improvements, an American kestrel (Falco sparverius) and a Swainson's hawk (Buteo swainsoni) (May and Associates 2003).

Sensitive Species

Table 1 (Appendix A) contains the list of potentially occurring special-status plants in the WPCF region. The plants on the list were developed from a search of the CNDDB and USFWS databases as described above. Using the GIS data feature of the CNDDB RareFind package, blue skullcap (Scutellaria lateriflora), rose-mallow (Hibiscus lasiocarpus), and Suisun Marsh aster (Aster lentus) were found to occur within a five mile radius of the WPCF. While some areas of ponded water and disturbed ground are present within the WPCF, there are no natural habitats present which could support special-status plants. The ponds there are artificial and the areas of disturbed ground appear to be managed with either herbicides or mowing.

Potentially occurring special-status wildlife species in the WPCF region are listed in **Table 2 (Appendix A)**. A few of these are known to occur within in the vicinity of the WWTP site. Using the GIS data feature of the CNDDB RareFind package, vernal pool tadpole shrimp (Lepidurus packardi), giant garter snake (Thamnophis gigas), western pond turtle (Clemmys marmorata marmorata), California black rail (Laterallus jamaicensis coturniculus), Swainson's hawk (Buteo swainsoni), Western burrowing owl (Athene cunicularia hypugea), and Sacramento splittail (Pogonichthys macrolepidotus) were found to occur within a five mile radius of the WPCF.

Although the species above occur within five miles of the WPCF, little suitable habitat for wildlife exists onsite. The only areas which could support wildlife are trees which occur near the control facility, around the edges of the WPCF, and the ponds which are used to treat wastewater. None of the treatment ponds are hydrologically connected to natural waterways.

The USFWS database contained records for several fish species which do not have the potential to occur on the project site due to lack of appropriate habitat. Details on the habitat requirements of the fish species are in **Table 2 (Appendix A)**. Appropriate habitat is also not present for the invertebrate species listed in **Table 2 (Appendix A)** (Conservancy fairy shrimp, longhorn fairy shrimp, vernal pool fairy shrimp, valley elderberry longhorn beetle and Delta green ground beetle). These species require either vernal pools, or their associated grassland or elderberry shrubs, neither of which are present at the WPCF.

Another species in the USFWS database of interest was the California red-legged frog (Rana aurora draytonii) (CRLF). The USFWS designated final critical habitat for CRLF in April 2006 and the maps prepared do not show any CRLF critical habitat in San Joaquin County. The closest area of designated critical habitat is in Alameda County. Critical habitat for California tiger salamander (Ambystoma californiense) is also not present in the vicinity of the WPCF. The closest designated critical habitat is in the eastern part of Sacramento and San Joaquin counties. Foothill yellow-legged frog (Rana boylii) requires natural creeks or rivers and therefore would be unlikely within the Improvement area. Similarly, the vegetated freshwater channels supporting fish and amphibians are not present within the project area.

There are suitable nest trees (Eucalyptus) for Swainson's hawk around the WPCF. During the January 31, 2003 site visit, a Swainson's hawk was observed perching on a utility pole approximately 200 feet south of the site. This bird is likely wintering in the area and it is unknown whether this individual would be nesting in the local area in the spring. The general vicinity is known to support nesting Swainson's hawk. The CNDDB contains records of nesting Swainson's hawk approximately two miles north of the project area and approximately two miles south of the project area (CNDDB 2003). There are no known occurrences of nesting Swainson's hawk within the project area or closer than two miles from the project area (May and Associates 2003).

The only other wildlife species with the slight potential to be found in the project area would be the western pond turtle (Clemmys marmorata marmorata). This species can be found in ponded water areas, but prefers more natural settings with basking sites and aquatic vegetation. It could perhaps be found as a transient in the larger ponds to the north of the Clarifier No. 3 project area. The nearest CNDDB locations for the western pond turtle species are within a mile north of the WPCF on the western side of I-5 and near the junction of I-5 and Highway 12.

Birds potentially using the WPCF Improvements area could be either transients or could use the trees in the area for roosting or nesting. In order to determine whether any special-status bird species could be impacted by project construction, the City of Lodi may retain a qualified biologist to conduct a focused survey for raptor and other special-status bird species nesting sites within 0.4 km (0.25 mile) of the construction area prior to (i.e., within 30 days of) the onset of each construction phase initiated during the nesting season (March 15 – August 15).

If active nests are located during pre-construction surveys, then the CDFG and/or USFWS shall be notified on the status of the nests, and 2) construction shall be delayed within 0.4 km (0.25 mile) of the nest to avoid disturbance until the juvenile birds have fledged. If it is not feasible to maintain this minimum distance from an active nest, the City shall consult with CDFG and/or USFWS to determine whether a smaller buffer may be acceptable based on site-specific conditions, such as vegetative and topographic screening or the nature of the construction activity. Alternative screening or disturbance minimization measures may also be considered, subject to the approval of the CDFG and/or the USFWS.

In addition to special-status birds, a number of non- special-status raptor species (e.g., red-tailed hawk, etc.) may nest in the area. California Fish and Game Code protects all raptor nests during the nesting season (roughly March-August).

Finally, the San Joaquin kit fox (Vulpes macrotis mutica) is listed by the CNDDB and the USFWS as potentially occurring in the area, but no locations are reported within five miles of the project site. The USFWS would not be likely to require surveys for the species given the lack of natural open areas and the current level of disturbance. However, USFWS may be consulted for an early evaluation to determine if surveys are necessary.

Wetlands and "Waters of the U.S."

There are no wetlands or "other waters of the U.S." within or adjacent to the areas proposed for improvement. The only aquatic areas within the project area are constructed, actively managed, unvegetated, wastewater storage ponds.

ANSWERS TO CHECKLIST QUESTIONS

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

The only special-status species with potential to occur within or adjacent to the project area are nesting Swainson's hawk and the western pond turtle. While suitable nest trees do not occur within any of the areas proposed for improvement, there are suitable nest trees near the project and Swainson's hawks are known to nest in the general vicinity (i.e., within 2.5-miles of the project). It is recommended that preconstruction surveys for nesting Swainson's hawk be conducted within 1/2-mile of the project if construction activities are planned to occur within the nesting season (i.e. March-August). If Swainson's hawks are found nesting within 0.5-mile of the project, the California Department of Fish and Game (DFG) would need to be consulted to determine measures to avoid nest disturbance.

Due to the proximity of known locations of the western pond turtle species, a pre-construction survey shall be conducted of any ponds which would be drained or altered during the proposed project. These actions would reduce impacts to Swainson's hawks and western pond turtles to a less-than-significant level.

MITIGATION MEASURE

1. Preconstruction surveys for nesting Swainson's hawk shall be conducted within 1/2-mile of the project since construction activities are planned to occur within the nesting season (i.e., March-August). If Swainson's hawks are found nesting within .5-mile of the project, the California Department of Fish and Game (DFG) shall be consulted to determine measures to avoid nest disturbance.
2. Due to the proximity of known locations of the western pond turtle species, a pre-construction survey shall be conducted of any ponds which would be drained or altered during the proposed project.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

The WPCF does not contain any riparian habitat or other sensitive natural communities. No impact would result.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) Through direct removal, filling, hydrological interruption, or other means?

The WPCP does not contain any protected wetlands, vernal pools or waters regulated by Section 404 of the Clean Water Act. No impact would result.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The proposed project is not located within any known wildlife dispersal migration corridors. In addition, ground disturbance and construction activities would take place within the existing developed area of the WPCF. No impact would occur.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

There are no locally designated natural communities within or adjacent to the project area, and the proposed project would not result in the removal of any heritage trees. No impact would result.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or State habitat conservation plan?

The SJCMSHCP was developed to minimize and mitigate impacts to plant and wildlife resulting from the loss of open space projected to occur in San Joaquin County between 2001 and 2051.

The City of Lodi adopted the SJCMSHCP in 2001, and projects under the jurisdiction of the City can seek coverage under the plan. The proposed project would not conflict with the provisions adopted by the City since the structures are already in existence. Thus, no impact would result.

FINDINGS

Implementation of the above mitigation measure would reduce potential impacts to biological resources (i.e., nesting Swainson's hawk and western pond turtle) to a less-than-significant level.

V. CULTURAL RESOURCES. Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?	☐	☑	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5??	☐	☑	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☑	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☑	☐	☐

ENVIRONMENTAL SETTING

John Nadolski of PMC conducted archaeological and historic investigations for the proposed project. These investigations included: a records search conducted by the Central California Information Center at California State University, Stanislaus on December, 5, 2006; a sacred lands search completed by the Native American Heritage Commission on December 15, 2006; consultation with the Native American community; pedestrian surface survey of the APE for the WPCF; and completion of a report documenting the results of investigations that includes management recommendations for any significant cultural resources (e.g., prehistoric sites, historic sites, historic buildings, or isolated artifacts) within the project APE.

The record search for the WPCF identified one previous survey within the project APE (cf., Wohlgemuth 1990) and did not identify any previously recorded prehistoric sites, historic sites, or isolated artifacts either in or adjacent to the project APE. The previous survey within the project boundaries did not cover the entire project APE. Consequently, cultural resources staff of PMC conducted an intensive pedestrian surface survey across the project APE using two meter transects.

Pedestrian surface survey did not identify any cultural resources in the project APE. The entire project APE is previously disturbed by activities associated with the construction of the WPCF and the installation of its associated infrastructure (e.g., abandoned ponds, currently used ponds, and areas adjacent to existing facilities). In addition, construction of new facilities requires that fill be deposited in areas within the project APE. Proposed improvements at the WPCF will occur in both previously disturbed areas and areas consisting of imported fill materials. Consequently, the vertical project APE is located in previously disturbed contexts and any subsurface excavations associated with the project would not likely uncover any intact deposits of cultural material. No prehistoric or historic archaeological resources or historic properties have been recorded within this area. No resources of value to local cultural groups have been reported within this area.

The results of the sacred lands search completed by the NAHC on December 15, 2006 did not identify any Native American cultural resources either within or near the APE for the WPCF. PMC cultural resources staff contacted all groups and/or individuals on the list provided by the Native American Heritage Commission regarding the proposed project. PMC has not received any comments regarding the project from any interested parties.

Archaeological and historical investigations for the project did not identify any cultural resources within the project APE and determined that the APE is previously disturbed by construction and expansion of the WPCF. These investigations are adequate to identify cultural resources that would typically occur in the area and no additional investigations are necessary prior to project implementation. It is not anticipated that implementation of the project as currently proposed would likely impact any historical resources or unique archaeological resources and implementation of the project does not require any special mitigation measures for the protection of cultural resources.

ANSWERS TO CHECKLIST QUESTIONS

a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?

No historical resources have been identified within the project area, and no impacts are anticipated. However, if during construction any historical resources are uncovered, work will be halted until a qualified expert can evaluate the situation and recommend mitigation measures.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?

No archaeological resources have been identified within the project area, and no impacts are anticipated. However, if during construction any archaeological objects are uncovered, work will be halted until a qualified expert can evaluate the situation and recommend mitigation measures.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No paleontological resources or unique geologic features have been identified within the project area, and no impacts are anticipated. However, if during construction any paleontological resources or unique geologic features are uncovered, work will be halted until a qualified expert can evaluate the situation and recommend mitigation measures.

d) Disturb any human remains, including those interred outside of formal cemeteries?

No human remains, including those interred outside of formal cemeteries, were previously recorded or observed on the project site. If during construction, human remains are discovered, work will be halted until a qualified expert can evaluate the situation and recommend mitigation measures.

Mitigation is proposed for unanticipated discoveries of cultural resources during project construction. This mitigation would be incorporated into Project Plans and Specifications.

MITIGATION MEASURE

1. Contractors and construction personnel involved in any form of ground disturbance (i.e., trenching, grading, etc.) shall be advised of the possibility of encountering subsurface cultural resources or human remains. If such resources are encountered or suspected, work within 100 feet of the discovery shall be halted immediately and the City of Lodi Planning Department shall be notified. In accordance to CCR Section 15064 (f) and PRC Section 21083.2(i), a qualified professional archaeologist shall be consulted, who shall assess any discoveries and develop appropriate management recommendations for treatment of the resource.

   If bone is encountered and appears to be human, California Law requires that potentially destructive construction work is halted and the San Joaquin County Coroner is contacted. If the coroner determines the human remains are of Native American origin, the coroner must contact the Native American Heritage Commission. The Native American Heritage Commission will attempt to identify the most likely descendant(s), and recommendations will be developed for the proper treatment and disposition of the remains in accordance with CCR Section 15064.5(e) and PRC Section 5097.98. A note to this effect shall be included on all construction plans and specifications.

FINDINGS

Implementation of the above mitigation measure would reduce potential impacts to cultural resources to a less-than-significant level.

VI. GEOLOGY AND SOILS. Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☑
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☑
ii) Strong seismic ground shaking?	☐	☐	☐	☑
iii)	☐	☐	☐	☑
iv)Landslides?	☐	☐	☐	☑
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☑	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☑
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☑	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☑

ENVIRONMENTAL SETTING

Seismicity

No faults are known to cross through the project area. However, as with much of California, the Lodi area is subject to earthquake damage (City of Lodi 1990). The potential damage from earthquake groundshaking in the Lodi area is a maximum intensity of VIII of the Modified Mercalli scale. An earthquake of intensity VIII could cause alarm and structural damage would be moderate depending on structural design. As the WPCF is within Zone 3 of the UBC's Seismic Risk Map of the United States, the City requires that all new structures be designed to withstand this intensity level (City of Lodi 1988).

Soils

Soils at the project site are divided between clay loams and sandy loams (City of Lodi 1988). Soils within the proposed improvement area are classified as Derries sandy loam, which are somewhat poorly drained; have a low shrink-swell potential; and have a moderate wind erosion hazard (City of Lodi 1988).

ANSWERS TO CHECKLIST QUESTIONS

Questions A and C

The proposed project would not result in additional exposure of people to geologic or seismic hazards. None of the faults in the vicinity of the proposed project are known to be active. The proposed improvements would be constructed to current Uniform Building Code standards, which would minimize the potential for damage due to ground shaking. Ground failure, including liquefaction, is not expected to occur due to the depth of the water table and soils present. Constructed facilities would meet current standards for earthquake stability. There is no potential for seiche, tsunami, volcanic or landslide hazard impacts. The topography of the site is generally level and would not involve significant changes as a result of proposed improvements. No impacts.

b) Result in substantial soil erosion or the loss of topsoil?

Appropriate fill material would be used for all proposed improvements. The potential for soil erosion would be reduced to a less-than-significant level through the implementation of appropriate BMPs.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Soils within the proposed improvement area have a low shrink-swell potential. Therefore, the potential for expansive soils is less-than-significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

The proposed project would be served by the City of Lodi wastewater system. Therefore, there would be no related impact to septic tanks or alternative wastewater disposal systems. No impact would occur.

FINDINGS

Implementation of the above mitigation measures would result in less-than-significant impacts to geology and soils.

VII. HAZARDS AND HAZARDOUS MATERALS. Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☑	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☑	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☑	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☑	☐

VII. HAZARDS AND HAZARDOUS MATERALS. Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
f) For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☑

ENVIRONMENTAL SETTING

Several chemicals that could be considered hazardous materials are currently used for treatment at the WPCF. These chemicals include chlorine and sulfur dioxide gas. A release of these chemicals into the environment could pose a threat to human health and safety. Diesel fuel, waste oil, lubricants and oils, and latex paint are also used at the WPCF, however, they are used in small quantities and represent minimal concern. The discharge of effluent into Dredger Cut could potentially pose health problems related to bacterial contamination of recreationists and heavy metal accumulation in fish.

ANSWERS TO CHECKLIST QUESTIONS

Questions A, B, C, and D

As discussed in the Environmental Setting above, chlorine and sulfur dioxide gasses are currently used for treatment at the WPCF. Small quantities of diesel fuel, waste oil, lubricants and oils, and latex paint are also used at the WPCF. Construction activities could result in the release or uncovering of hazardous or toxic materials.

The use and storage of existing hazardous materials at the WPCF is regulated by the San Joaquin County Department of Environmental Health Services. To comply with Chapter 6.95 of the California Health and Safety Code, the City of Lodi must detail the operating and storage procedures involving acutely hazardous materials (AHMs), including chlorine in a Hazardous Materials Management Plan (HMMP). A hazard assessment of the WPCF, including a discussion of the consequences of the release of AHMs into the environment and management practices for the storage and use of AHMs is required in the HMMP.

As discussed under Project Construction in Section 2.0, the existing HMMP shall be updated to address the potential use of additional hazardous materials or the creation of new hazards as a result of proposed Phase 3 improvements. This plan would include specifications concerning the proper handling and storage of potentially hazardous materials, as well as proper procedures for cleaning up and reporting of spills. Additionally, in the event hazardous or contaminated materials are encountered in proposed improvement areas, the Contractor would stop work immediately, contact the Engineer and schedule operations to work elsewhere on the site if possible.

The City would be responsible for handling and removal of hazardous material or may request that the Contractor be made available, through contract change order, to provide additional services as needed for the completion of the work. Additional services may consist of retaining subcontractors who possess a California license for hazardous substance removal and remedial actions.

Implementation of these special environmental provisions as part of the proposed project would ensure that the risk of accidental explosion or release of hazardous substances, the creation of any health hazard or potential health hazard, or the exposure of people to existing sources of potential health hazards as a result of construction activities and facility operations would be less-than-significant.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

The project site is not located within an airport land use plan, nor within two miles of a public airport. Therefore, the project would not result in a safety hazardous for people residing or working in the project area. There would be no impact.

f) For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

The project site is not located within the vicinity of an active private airstrip. There would be no impact.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Construction of the proposed project would not interfere with emergency response or emergency evacuation plans, as no major streets or emergency routes would be affected as a result of the proposed Phase 3 improvements. No impact would result.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

The proposed project would not increase fire hazards in the project area, as no flammable materials are proposed with improvements. No impact would result.

MITIGATION MEASURES

No mitigation is required.

FINDINGS

The project would result in less-than-significant hazard impacts.

VIII. HYDROLOGY AND WATER QUALITY. Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☑	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☑	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☑	☐

VIII. HYDROLOGY AND WATER QUALITY. Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☑	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☑	☐
f) Otherwise substantially degrade water quality?	☐	☐	☑	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☑
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☑
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding of as a result of the failure of a levee or dam?	☐	☐	☐	☑
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☑

ENVIRONMENTAL SETTING

Surface Water

The WPCF is located on the eastern edge of the Sacramento-San Joaquin Delta waterway system. The sloughs and canals in this area generally drain southward and westward into the San Joaquin River, approximately 25 miles upstream from its confluence with the Sacramento River (City of Lodi 1988). The WPCF discharges effluent into Dredger Cut, a man-made channel that connects to both White Slough and Bishop Cut. These waterways, in turn, are connected to the San Joaquin River by Disappointment Slough, Fourteen Mile Slough, and Honker Cut. Dredger Cut is a manmade channel which was constructed in the early 1900s to provide drainage for agricultural lands in the area. Dredger Cut, White Slough, and other Delta channels are normally dominated by tidal flows (West Yost 2001).

Flooding

Lands west of Interstate 5 in the vicinity of the WPCF and the neighboring areas are located within the 100-year floodplain of the Sacramento-San Joaquin Delta (City of Lodi 1991a). The 100-year flood elevation is estimated to be eight feet above mean sea level, compared to ground elevations of three feet near the peripheral canal ponds and seven feet near Interstate 5. Thus, floodwaters are about five feet deep on the western edge of the effluent-irrigated fields diminishing to about one foot deep near the treatment works. Since they are not protected by levees, the lowermost fields are inundated by floods more frequently than the recurrence of the 100-year flood (City of Lodi 1988).

Groundwater

The groundwater table is moderately shallow under much of the WPCF site. Based on testing executed by Kleinfelder and Associates, groundwater was encountered at depths of between approximately 5½ and 10½ feet, but was not generally encountered in the ten-foot deep borings. Groundwater was noted in monitoring wells around the WPCF in 1989 at depths of seven to 14 feet. Fluctuations in groundwater depth were anticipated to be the result of local irrigation practices (Kleinfelder 1999).

ANSWERS TO CHECKLIST QUESTIONS

Questions A and F

The proposed project would result in beneficial impacts to the existing discharge into surface waters (i.e., Dredger Cut). As previously discussed, the WPCF uses biological processes to convert nitrogen from organic matter to nitrate, which is necessary to protect fish in Dredger Cut. At current flows, the WPCF has difficulty fully converting nitrogen in the wastewater to nitrate during winter months. Proposed aeration improvements would correct this situation. Planned improvements would also reduce nitrate conditions in wastewater to below drinking water standards.

Construction related activities have the potential to impact water quality. The release of sediments, fuel, oil, grease, solvents, concrete wash and other chemicals used in construction activities could impact water quality if allowed to enter Dredger Cut. Operations related activities associated with proposed improvements would not impact water quality.

The spill prevention plan currently in place for the WPCF would continue to be implemented. The City would employ BMPs before, during and after construction. The potential for construction related water quality impacts, specifically into Dredger Cut, would be reduced to a less-than-significant level through implementing appropriate BMPs. Additionally, and as previously stated, all runoff at the WPCF is contained and treated on the site. This would continue with the proposed project. Impacts are expected to be less-than-significant.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

No change in the quantity of groundwater is expected to result from the proposed project. The amount of groundwater available for public water supplies would not be impacted by the proposed project. Impacts to groundwater are expected to be less-than-significant.

Questions C, D, and E

The proposed project would not result in substantial changes to the amount of impervious surfaces at the WPCF. Proposed Phase 3 improvements would predominately occur on either existing impervious surfaces or the infill pond area. Some new impervious surfaces would occur with the construction of the granular or cloth-media tertiary filters, the coagulant feed equipment and building, the clearwell and backwash pumping facilities, and the ultraviolet disinfection facilities over the infilled pond area. This addition of approximately one acre of impervious surface would not result in significant changes in runoff and absorption rates at the site. Currently runoff from the site drains to adjacent agricultural land owned by the City of Lodi, and back to storage ponds. All runoff at the WPCF is contained and treated on the site. This would continue with the proposed project. Impacts are expected to be less-than-significant.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

The proposed project would not significantly increase the exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood. No impact would occur.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

The project is not located with in a 100 year flood hazard zone. No impact would result.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding of as a result of the failure of a levee or dam?

The project site is not located within the vicinity of a levee, dam, or a dam inundation area. As such, no impact would result.

j) Inundation by seiche, tsunami, or mudflow?

Given the substantial distance of the site from San Francisco Bay and the Pacific Ocean, seiche and tsunami waves would not be a threat to the site. The proposed project site is flat and does not have any steep slopes or hillsides that would be susceptible to mudflows or landslides. Therefore, no impact would occur.

FINDINGS

The proposed project would result in less-than-significant impacts to water quality.

IX. LAND USE AND PLANNING. Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☑
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☑
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☑

ENVIRONMENTAL SETTING

The White Slough WPCF is located in San Joaquin County, but is owned and annexed to the city as a noncontiguous part of the City of Lodi. The WPCP is within the City of Lodi's Sphere of Influence, which was established by the City in 2004. City of Lodi Zoning and General Plan designations for the project site are "Public." San Joaquin County General Plan and Zoning apply to the surrounding lands and are designated as agricultural lands.

Delta farms are located to the west, and Lodi vineyards are located to the northeast. The general area is used for farming. The treatment plant and the City's effluent-irrigated lands are surrounded by pasture lands to the north, south, and west of the project site (City of Lodi 1992). Interstate 5 is located to the east of the project site. The surrounding area is rural and sparsely populated. Residences in proximity to the project area vicinity are associated with agricultural uses (City of Lodi 1988). The closest residences are approximately 4,000 feet north and east of the WPCF.

The WPCF is also located within a major transportation and utility corridor connecting northern and southern California. Both Interstate 5 and three major power transmission lines pass through the facility. Lying at the edge of the Delta, the WPCF is adjacent to marsh and aquatic habitats important to both migratory birds and resident fish and wildlife (City of Lodi 1988).

ANSWERS TO CHECKLIST QUESTIONS

a) Physically divide an established community?

The proposed project would not disrupt or divide the physical arrangement of an established community, as project improvements are proposed within the existing WPCF project area. No impact would occur.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

The proposed project would not conflict with existing general plan designation or zoning, conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project, or be incompatible with existing land use in the vicinity, as uses at the site would not change as a result of the proposed project. Existing uses are in compliance with general plan designations, zoning, and applicable environmental plans and policies. No impact would occur.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

The City of Lodi adopted the SJCMSHCP in 2001. The conservation plan was developed to minimize and mitigate impacts to plant and wildlife habitat resulting from the loss of open space. Since the proposed project is within the existing WPCF, it will not have an effect on the City of Lodi habitat conservation plan or natural community conservation plan. No impact would occur.

MITIGATION MEASURES

No mitigation is required.

FINDINGS

The proposed project would not result in impacts to land uses and planning.

X. MINERAL RESOURCES. Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?	☐	☐	☐	☑
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☑

ANSWERS TO CHECKLIST QUESTIONS

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?

According to the City's General Plan, the subject property and surrounding area are not known to contain regionally and/or state valued mineral resources. Therefore, implementation of the proposed project would not result in an impact to mineral resources.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

The subject property has not been historically used for mineral extraction. In addition, the City's General Plan does not identify the project site as a locally important mineral resource recovery site. There would be no impact.

MITIGATION MEASURES

No mitigation is required.

FINDINGS

The project would not result in impacts to mineral resources.

XI. NOISE. Would the project result in:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☑	☐
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels??	☐	☐	☑	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☑	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☑	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑

ENVIRONMENTAL SETTING

Noise is defined as unwanted sound. Sound levels are usually measured and expressed in decibels (dB) with zero dB being the threshold of hearing. Decibel levels range from zero to 140. Typical examples of decibel levels would be a low decibel level of 50 dB for light traffic to a high decibel level of 120 dB for a jet takeoff at 200 feet.

The WPCF is located in an agricultural area west of Interstate 5. Freeway traffic represents the dominant noise source in the project vicinity. Existing noise levels in the project area are expected to exceed 65 decibel (dB), which is deemed excessively noisy per the City of Lodi General Plan (City of Lodi 1990).

ANSWERS TO CHECKLIST QUESTIONS

Questions A, B, C, and D

Pumps and other mechanical equipment associated with proposed WPCF improvements would generate noise levels of approximately 60-75 dBA at 50 feet. Noise from this equipment would not be noticeable at locations off the project site. Therefore, operation related noise would not pose a significant noise impact and would not expose people to severe noise levels.

Temporary increases in noise levels would occur during construction activities. Generally, noise levels at construction sites can vary from 65 dBA to a maximum of nearly 90 dBA at a distance of 50 feet when heavy equipment is used. Construction activity would also produce a temporary increase in truck traffic in the project vicinity. Construction noise would be intermittent, and noise levels would vary depending on the type of construction activity. As the closest residences are approximately 4,000 feet north and east of the WPCF, distance attenuation would reduce construction activity noise to less than 55 dBA at these residences (City of Lodi 1988). Therefore, construction noise would not pose a significant noise impact and would not expose people to severe noise levels. Less-then-significant impacts would result.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The project site is not located within an airport land use plan, or within two miles of a public airport or public use airport. No impact would occur.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

There are no active private airstrips within the City of Lodi. Therefore, no impact would occur.

MITIGATION MEASURE

No mitigation is required.

FINDINGS

The proposed project would result in less-than-significant noise impacts.

XII. POPULATION AND HOUSING. Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☑
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑

ENVIRONMENTAL SETTING

No housing exists within the White Slough WPCF project area. The closest residences are approximately 4,000 feet north and east of the WPCF (City of Lodi 1988). The surrounding area is rural and sparsely populated. Residences in proximity to the project area vicinity are associated with agricultural uses (City of Lodi 1988).

ANSWERS TO CHECKLIST QUESTIONS

Questions A, B and C

The proposed project would not alter the location, distribution, density or growth rate of the human population of the area. The project would not affect existing housing or create a demand for additional housing, as the proposed Phase 3 improvements would not result in increased capacity of the facility, or the need for additional employees. There is no existing housing within the project site. Therefore, no impacts to population and housing would occur.

MITIGATION MEASURES

No mitigation is required.

FINDINGS

The proposed project would result in no impacts to population and housing.

XIII. PUBLIC SERVICES Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Fire protection?	☐	☐	☐	☑
b) Police protection?	☐	☐	☐	☑
c) Schools?	☐	☐	☐	☑
d) Parks?	☐	☐	☐	☑
e) Other public facilities?	☐	☐	☐	☑

ENVIRONMENTAL SETTING

The City of Lodi provides fire, police, and other services within the project area. The Lodi Unified School District is comprised of portions of north Stockton, the City of Lodi, and surrounding areas (City of Lodi 1988).

ANSWERS TO CHECKLIST QUESTIONS

Questions A – E

The proposed project would not result in impacts to existing police and fire protection services or the need for any new police and fire protection facilities. The proposed project would not result in effects to existing schools, or the need for any new school facilities. No additional maintenance provisions would be required as a result of the proposed project. No impacts would occur.

MITIGATION MEASURES

No mitigation is required.

FINDINGS

The proposed project would not result in impacts to public services.

XIV. RECREATION.	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☑
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☑

ENVIRONMENTAL SETTING

The area surrounding the WPCF provides fishing opportunities via the peripheral canal ponds, Dredger Cut, and White Slough. The rural character of the area contributes to this type of recreation.

ANSWERS TO CHECKLIST QUESTIONS

Question A

The proposed project would not increase the demand for recreational facilities, as the proposed project is not increasing the capacity of the facility, or the need for additional employees or housing. No impact would occur.

Question B

The proposed improvements would not be visible to fishing areas in the peripheral canal ponds, Dredger Cut, or White Slough. Proposed aeration improvements would further protect fish in Dredger Cut, thus enhancing fishing opportunities. No impact would occur.

MITIGATION MEASURES

No mitigation is required.

FINDINGS

The proposed project would not result in impacts to recreational resources.

XV. TRANSPORTATION/TRAFFIC. Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☑	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency or designated roads or highways?	☐	☐	☐	☑
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☑	☐
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☑	☐
e) Result in inadequate emergency access?	☐	☐	☐	☑
f) Result in inadequate parking capacity?	☐	☐	☐	☑
g) Conflict with adopted polices, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☑

ENVIRONMENTAL SETTING

The White Slough WPCF is located on the west site of Interstate 5, south of the State Route 12 interchange at the North Interstate 5 Frontage Road/Thorton Road undercrossing (City of Lodi 1988).

Interstate 5 is a six-lane, divided, grade-separated freeway. It runs parallel to State Route 99, and together they provide regional access to Stockton and Sacramento. Interchanges on Interstate 5 are at State Route 12 to the north, and at Eight Mile Road to the south of the WPCF (City of Lodi 1988). State Route 12 is a two-lane major east-west facility that crosses Interstate 5 just north of the project site. State Route 12 provides access to Fairfield, Lodi, and eastern San Joaquin County (City of Lodi 1988). Thorton Road is a two-lane, rural roadway that generally runs parallel to and on the east side of Interstate 5. It is a rural, country road. The North Interstate 5 Frontage Road runs east-west from Thorton Road, crosses under Interstate 5, and turns north just past the WPCF entrance. On the east side of Interstate 5, a grid pattern of rural, two-lane roads serves the agricultural community west of Lodi. (City of Lodi 1988)

Both Interstate 5 and State Route 12 are minimally congested at times. Traffic on the North Interstate 5 Frontage Road is mostly limited to vehicles entering or exiting the WPCF or accessing peripheral ponds or Delta slough waterways. This roadway operates well below its daily capacity. The roadways of the local grid serving agricultural properties carry relatively little traffic (City of Lodi 1988).

Parking is present on the WPCF site.

ANSWERS TO CHECKLIST QUESTIONS

a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

Some traffic increase would occur due to construction-related traffic (i.e., employee commuting, material hauling, etc.). Because the proposed project would not increase the capacity of the WPCF, additional traffic during the operation of the proposed project is not expected. Potential impacts would be short-term and would be considered less-than-significant.

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency or designated roads or highways?

San Joaquin County Council of Governments has a congestion management agency. This is an optional countywide agency that is responsible for developing the Congestion Management Program and coordinating and monitoring its implementation. The Congestion Management Program is required of every urban locale in the State of California. Congestion Management Agencies use the Congestion Management Program to set performance standards for roads and public transit and to explain how cities will attempt to meet these standards. No congestion management agency designated roads or highways would be affected by the proposed project. There would be no impact.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

The proposed project would not have any impact on air traffic patterns since the project is not located near an airport. No related impacts would occur as a result of the proposed project.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The proposed project would not create sharp turns or other safety hazards for vehicles or pedestrians. Proposed Phase 3 improvements would not result in any change to existing roadway systems in the facility. During construction and operation of the project, it is not anticipated that the blockage of any lanes or residential properties would occur. No related impacts would occur as a result of the proposed project.

e) Result in inadequate emergency access?

Emergency access would not be impeded during construction. There would be no impact.

f) Result in inadequate parking capacity?

Parking for the WPCF is provided on-site and would not be impacted by the proposed project. All construction parking would occur on-site and would be short-term in nature. No impact would result.

g) Conflict with adopted polices, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

The proposed project would not create barriers to alternative modes of transportation and would not conflict with adopted policies, plans or programs supporting alternative transportation. No impact would result.

MITIGATION MEASURES

No mitigation is required.

FINDINGS

The project would not result in significant impacts to transportation or circulation.

XVI. UTILITIES AND SERVICE SYSTEMS. Would the project:	Potentially Significant Impact	Potentially Significant Unless mitigation Incorporated	Less than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☑
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☑
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☑
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☑
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☑
f) Be served by a landfill with sufficient permitted capacity to accommodate the project=s solid waste disposal needs?	☐	☐	☐	☑
g) Comply with federal, State, and local statutes and regulations related to solid waste?	☐	☐	☐	☑

ENVIRONMENTAL SETTING

The WPCF is located within a major utility corridor connecting northern and southern California. Three major power transmission lines pass through the facility. The WPCF uses electricity to drive the treatment process. The City of Lodi and the majority of the area surrounding Lodi rely on groundwater as their source of domestic water supply. The City provides water to its customers from a series of 25 wells drawing on 150 foot to 400 foot deep aquifers. A"safe yield" of approximately 15,000 acre-feet per year (AFY) has been estimated for the aquifer serving as the source of the City water supply based on water balance calculations (City of Lodi 2006). Stormwater runoff from the WPCF drains to surrounding agricultural land owned by the City of Lodi, and back to storage ponds. Solid waste in the City of Lodi is collected under contract with Central Valley Waste, and deposited at the Harney Lane Sanitary Landfill. The landfill is owned and operated by San Joaquin County (City of Lodi 1988).

ANSWERS TO CHECKLIST QUESTIONS

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

The proposed project would result in beneficial impacts to the existing discharge into surface waters (i.e., Dredger Cut). As previously discussed, the WPCF uses biological processes to convert nitrogen from organic matter to nitrate, which is necessary to protect fish in Dredger Cut. At current flows, the WPCF has difficulty fully converting nitrogen in the wastewater to nitrate during winter months. Proposed aeration improvements would correct this situation. Proposed improvements would also reduce nitrate concentrations in wastewater to below drinking water standards. The proposed project would not exceed any requirements of the Central Valley Regional Water Quality Control Board. No impact would result.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The proposed project would not impact local or regional water supplies. The proposed project would improve the WPCF operations and reduce environmental effects. Additional water supply would not be necessary to accommodate proposed Phase 3 improvements. The proposed project would not increase demand on wastewater treatment. No impact would result.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The proposed project would not result in impacts to storm water drainage patterns. The existing system of draining storm waters to surrounding City owned agricultural land would continue with the proposed project. A storm water system would be installed with proposed improvements to convey runoff into the existing drainage system.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

The proposed project would not impact local or regional water supplies. The proposed project would improve the WPCF operations and reduce environmental effects. Additional water supply would not be necessary to accommodate proposed Phase 3 improvements. No impacts would result.

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

An existing storage/laundry room will be converted into a new women's restroom/shower. However, the existing sewer system will not need to be expanded. The proposed project would not increase demand on wastewater treatment. No impact would result.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

The proposed project would not require any new landfill capacity. No impact would occur.

g) Comply with federal, State, and local statutes and regulations related to solid waste?

The proposed project would comply with federal, state, and local statutes related to solid waste. No solid waste regulatory impacts would occur as a result of the project.

MITIGATION MEASURES

No mitigation is required.

FINDINGS

The proposed project would result in no impacts to utilities and service systems.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number of restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or pre-history?	☐	☑	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☑	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☑	☐

MANDATORY FINDINGS OF SIGNIFICANCE DISCUSSION

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

The proposed project could result in impacts to biological resources and cultural resources. However, the following mitigation measures would be implemented to reduce these impacts to less-than-significant levels.

MITIGATION MEASURE (BIOLOGICAL RESOURCES)

1. Preconstruction surveys for nesting Swainson's hawk shall be conducted within 1/2-mile of the project since construction activities are planned to occur within the nesting season (i.e., March-August). If Swainson's hawks are found nesting within

.5-mile of the project, the California Department of Fish and Game (DFG) shall be consulted to determine measures to avoid nest disturbance.

2. Due to the proximity of known locations of the western pond turtle species, a pre-construction survey shall be conducted of any ponds which would be drained or altered during the proposed project.

MITIGATION MEASURE (CULTURAL RESOURCES)

1. Contractors and construction personnel involved in any form of ground disturbance (i.e., trenching, grading, etc.) shall be advised of the possibility of encountering subsurface cultural resources or human remains. If such resources are encountered or suspected, work within 100 feet of the discovery shall be halted immediately and the City of Lodi Planning Department shall be notified. In accordance to CCR Section 15064 (f) and PRC Section 21083.2(i), a qualified professional archaeologist shall be consulted, who shall assess any discoveries and develop appropriate management recommendations for treatment of the resource.

   If bone is encountered and appears to be human, California Law requires that potentially destructive construction work is halted and the San Joaquin County Coroner is contacted. If the coroner determines the human remains are of Native American origin, the coroner must contact the Native American Heritage Commission. The Native American Heritage Commission will attempt to identify the most likely descendant(s), and recommendations will be developed for the proper treatment and disposition of the remains in accordance with CCR Section 15064.5(e) and PRC Section 5097.98. A note to this effect shall be included on all construction plans and specifications.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

The existing municipal treatment process train was originally designed to treat an average dry weather flow of 8.5 mgd. Improvements planned as part of the proposed project are necessary to meet current and anticipated regulatory requirements and improve treatment process reliability. After the Phase 3 Improvements are in place, the WPCF will treat approximately 8.5 millions gallon per day (mgd) (average dry weather flow) of municipal wastewater from the City. The proposed project would accommodate the existing population in the area.

When project impacts are considered along with, or in combination with other past, current, and probable future project impacts, the proposed project would not add substantially to cumulative effects. Impacts would be less than significant.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

The proposed project would not have significant environmental effects that would cause direct or indirect adverse effects to human beings.

SECTION VI. – REFERENCES

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SECTION VII. – PREPARERS

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APPENDIX A

Table 1 – Special-Status Plant Species for White Slough WPCF and Table 2 – Special-Status Wildlife Species with Potential to Occur at the White Slough WPCF Site, City of Lodi

TABLE 1
SPECIAL-STATUS PLANT SPECIES WITH POTENTIAL TO OCCUR WITHIN THE LODI WHITE SLOUGH WPCF PROJECT AREA

Common Name	Scientific Name	Status* F/S/CNPS	Distribution	Habitat Requirements	Identification Period	Comments
Suisun Marsh aster	*Aster lentus*	-/-/1B	Contra Costa, Napa, Sacramento, San Joaquin, Solano, and Sonoma counties	Marshes and swamps, brackish and freshwater	May -- November	No natural habitat present. **Unlikely within project site.**
Alkali milk-vetch	*Astragalus tener* var. *tener*	-/-/1B	Alameda, Contra Costa, Merced, Monterey, Napa, San Benito, Santa Clara, San Francisco, San Joaquin, Solano, Sonoma, Stanislaus, and Yolo counties	Seasonally inundated alkaline clay bottoms or barrens	March -- June	No habitat present. **Unlikely within project site.**
San Joaquin spearscale	*Atriplex joaquiniana*	-/-/1B	Alameda, Contra Costa, Colusa, Fresno, Glenn, Merced, Monterey, Napa, Sacramento, San Benito, Santa Clara, San Joaquin, Solano, Tulare, and Yolo counties	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland/alkaline	April -- October	No natural habitat present. **Unlikely within project site.**
Bristly sedge	*Carex comosa*	-/-/2	Contra Costa, Lake, Mendocino, Sacramento, San Bernardino, Santa Cruz, San Francisco, Shasta, San Joaquin, Sonoma, Idaho, Oregon, Washington, and elsewhere	Marshes and swamps	May -- September	No natural habitat present. **Unlikely within project site.**
Palmate-bracted bird's-beak	*Cordylanthus palmatus*	E/E/1B	Alameda, Colusa, Fresno, Glenn, Madera, San Joaquin, and Yolo counties	Chenopod scrub, Valley and foothill grassland /alkaline	May -- Oct	No habitat present. **Unlikely within project site.**
Round-leaved filaree	*Erodium macrophyllum*	-/-/2	Alameda, Contra Costa, Colusa, Fresno, Glenn, Kings, Kern, Lake, Lassen, Los Angeles, Merced, Monterey, Napa, Riverside, Santa Barbara, San Benito, Santa Cruz Isl., San Diego, San Joaquin, San Luis Obispo, San Mateo, Solano, Sonoma, Stanislaus, Tehama, Ventura, Yolo, Baja California, and Oregon	Cismontane woodland, valley and foothill grassland	March -- May	No natural habitat present. **Unlikely within project site.**

TABLE 1
SPECIAL-STATUS PLANT SPECIES WITH POTENTIAL TO OCCUR WITHIN THE LODI WHITE SLOUGH WPCF PROJECT AREA

Common Name	Scientific Name	Status* F/S/CNPS	Distribution	Habitat Requirements	Identification Period	Comments
Delta button-celery	*Eryngium racemosum*	-/E/1B	Calaveras, Contra Costa, Merced, San Joaquin, and Stanislaus counties	Riparian scrub	June -- August	No natural habitat present. **Unlikely within project site.**
Diamond-petaled California poppy	*Escholzia rhombipetala*	-/-/1B	Alameda, Contra Costa, Colusa, San Joaquin, San Luis Obispo, and Stanislaus counties	Valley and foothill grassland	March -- April	No natural habitat present. **Unlikely within project site.**
Rose-mallow	*Hibiscus lasiocarpus*	-/-/2	Butte, Contra Costa, Colusa, Glenn, Sacramento, San Joaquin, Solano, Sutter, Yolo counties and elsewhere	Freshwater marshes and swamps	June -- September	No habitat present. **Unlikely within project site.**
Northern California black walnut	*Juglans hindsii*	-/-/1B	Alameda, Butte, Contra Costa, Lake, Napa, Sacramento, Solano, Sonoma, and Yolo counties	Riparian forest, riparian woodland	April -- May	Species not present. Only one native occurrence known (CNPS). **Unlikely within project site.**
Delta tule pea	*Lathyrus jepsonii* var. *jepsonii*	-/-/1B	Alameda, Contra Costa, Napa, Sacramento, Santa Clara, San Joaquin, Solano, and Sonoma counties	Marshes and swamps, brackish and freshwater	May -- July	No natural habitat present. **Unlikely within project site.**
Legenere	*Legenere limosa*	-/-/1B	Alameda, Lake, Napa, Placer, Sacramento, Santa Clara, Shasta, San Joaquin, San Mateo, Solano, Sonoma, Stanislaus, Tehama, and Yuba counties	Vernal pools	April -- June	No habitat present. **Unlikely within project site.**
Mason's lilaeopsis	*Lilaeopsis masonii*	-/R/1B	Alameda, Contra Costa, Marin, Napa, Sacramento, San Joaquin, and Solano counties	Marshes and swamps, brackish and freshwater, Riparian scrub	April -- November	No natural habitat present. **Unlikely within project site.**
Delta mudwort	*Limosella subulata*	-/-/2	Contra Costa, Sacramento, San Joaquin, Solano, Oregon, and elsewhere	Marshes and swamps	May -- August	No natural habitat present. **Unlikely within project site.**
Eel-grass pondweed	*Potamogeton zosteriformis*	-/-/2	Contra Costa, Lake, Lassen, Modoc, Shasta, Idaho, Oregon, Utah, Washington, and elsewhere	Marshes and swamps	June -- July	No natural habitat present. **Unlikely within project site.**

TABLE 1
SPECIAL-STATUS PLANT SPECIES WITH POTENTIAL TO OCCUR WITHIN THE LODI WHITE SLOUGH WPCF PROJECT AREA

Common Name	Scientific Name	Status* F/S/CNPS	Distribution	Habitat Requirements	Identification Period	Comments
Sanford's arrowhead	*Sagittaria sanfordii*	-/-/1B	Butte, Del Norte, Fresno, Kern, Merced, Mariposa, Orange, Placer, Sacramento, Shasta, San Joaquin, Tehama, and Ventura counties	Shallow freshwater channels	May -- August	No natural habitat present. **Unlikely within project site.**
Marsh skullcap	*Scutellaria galericulata*	-/-/2	El Dorado, Lassen, Modoc, Nevada, Placer, Plumas, Shasta, Siskiyou, San Joaquin, Oregon, and elsewhere	Marshes and swamps, lower montane coniferous forest, meadows and seeps	June -- September	No natural habitat present. **Unlikely within project site.**
Blue skullcap	*Scutellaria lateriflora*	-/-/2	Inyo, San Joaquin, New Mexico, Oregon, and elsewhere	Marshes and swamps, meadows and seeps	July -- September	No natural habitat present. **Unlikely within project site.**
Caper-fruited tropidocarpum	*Tropidocarpum capparideum*	-/-/1B	Alameda, Contra Costa, Fresno, Glenn, Monterey, Santa Clara, San Joaquin, and San Luis Obispo counties	Valley and foothill grassland	March -- April	No natural habitat present. **Unlikely within project site.**

*Status Explanations:

Federal

E = listed as endangered under the federal Endangered Species Act.
T = listed as threatened under the federal Endangered Species Act.
C = Category 1 candidate for federal listing. Species for which USFWS has enough substantial information on biological vulnerability and threat to support proposals to list them.
-- = no listing status.

State

E = listed as endangered under the California Endangered Species Act.
R = listed as rare under the California Endangered Species Act. This category is no longer used for newly listed plants, but some plants previously listed as rare retain this status.
T = listed as threatened under the California Endangered Species Act.
-- = no listing status.

California Native Plant Society

1B = List 1B species: rare, threatened or endangered in California and elsewhere.
2 = List 2 species: rare, threatened or endangered in California, more common elsewhere.

TABLE 2 SPECIAL-STATUS WILDLIFE WITH POTENTIAL TO OCCUR WITHIN THE LODI WHITE SLOUGH WPCF PROJECT AREA					
Common and Scientific Name	**Federal**	**State**	**Distribution**	**Habitat Association**	**Comments**
Conservancy fairy shrimp *Branchinecta conservatio*	E	--	Tehama Butte, Solano, Glenn, San Joaquin and Ventura counties.	Large, cool-water vernal pools with moderately turbid water.	No habitat onsite (i.e., site lacks vernal pools). **Unlikely within project site.**
Longhorn fairy shrimp *Branchinecta longiantenna*	E	--	San Joaquin, Merced and San Luis Obispo counties.	Clear to rather turbid vernal pools. These include clear-water depressions in sandstone outcroppings, grass-bottomed pools and claypan pools.	No habitat onsite (i.e., site lacks vernal pools). **Unlikely within project site.**
Vernal pool fairy shrimp *Branchinecta lynchi*	T	--	Southern and Central Valley areas of California, and Jackson County, Oregon.	A variety of different vernal pool habitats, from small, clear, sandstone rock pools to large, turbid, alkaline, grassland valley floor pools.	No habitat onsite (i.e., site lacks vernal pools). **Unlikely within project site.**
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	T	--	Central Valley and surrounding foothills below 1,500 feet elevation.	Dependent on elderberry shrubs (host plant) as a food plant. Potential habitat is shrubs with stems 1 inch in diameter or greater within Central Valley.	No habitat onsite (i.e., site lacks vernal pools). **Unlikely within project site.**
Delta green ground beetle *Elaphrus viridis*	T	--	Central Solano County	Open habitats in the grassland-playa vernal pool matrix, such as edges of pools, trails, roads and ditches	No habitat onsite (i.e., site lacks vernal pools and associated upland grassland habitat). **Unlikely within project site.**
Vernal pool tadpole shrimp *Lepidurus packardi*	E	--	Central Valley of California and in the San Francisco Bay area.	Vernal pools containing clear to highly turbid water.	No habitat onsite (i.e., site lacks vernal pools). **Unlikely within project site.**
Delta smelt *Hypomesus transpacificus*	T	T	Sacramento-San Joaquin Delta, seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay.	Seldom found at salinities > 10 ppt, most often found at salinities < 2 ppt.	No suitable habitat onsite. **Unlikely within project site.**

TABLE 2
SPECIAL-STATUS WILDLIFE WITH POTENTIAL TO OCCUR WITHIN THE LODI WHITE SLOUGH WPCF PROJECT AREA

Common and Scientific Name	Federal	State	Distribution	Habitat Association	Comments
Central Valley steelhead *Oncorhynchus mykiss irideus*	T	--	Populations in the Sacramento and San Joaquin Rivers and their tributaries.	Steelhead migrate to marine waters after spending 2 years in fresh water. They then reside in marine waters for typically 2 or 3 years prior to returning to their natal stream to spawn.	No suitable habitat onsite. **Unlikely within project site.**
Central Valley spring-run chinook salmon *Oncorhynchus tshawytscha*	T	T	Federal listing refers to populations spawning in Sacramento River and tributaries.	Adult numbers depend on pool depth and volume, amount of cover and proximity to gravel. Water temps > 27°C lethal to adults.	No suitable habitat onsite. **Unlikely within project site.**
Winter run chinook salmon, Sacramento River *Oncorhynchus tshawytscha*	E	E	Sacramento River below Keswick Dam. Spawns in the Sacramento River but not in tributary streams.	Requires clean, cold water over gravel beds with water temperatures between 6 and 14C for spawning.	No suitable habitat onsite. **Unlikely within project site.**
Central Valley fall/late fall-run chinook salmon *Oncorhynchus tshawytscha*	C	SSC	Populations spawning in the Sacramento and San Joaquin Rivers and their tributaries.	Requires clean, cold water over gravel beds with water temperatures between 6 and 14C for spawning.	Folsom dam on the American River impedes migration into Smuthers Ravine and the unnamed tributary. **Unlikely within project site.**
Sacramento splittail *Pogonichthys macrolepidotus*	--	SSC	San Joaquin Delta, Suisun Bay, Suisun Marsh, Napa River, Petaluma River, and other parts of the Sacramento-San Joaquin Estuary.	Primarily freshwater fish, but are tolerant of moderate salinity (saltiness) and can live in water with salinities of 10-18 parts per thousand.	No suitable habitat onsite. **Unlikely within project site.**
California tiger salamander *Ambystoma californiense*	T	SSC	In the Coastal region, from Sonoma County in the northern San Francisco Bay Area to Santa Barbara County, and in the Central Valley and Sierra Nevada foothills from Yolo to Kern counties.	Grasslands and low (under 1,500 foot) foothill regions where lowland aquatic sites are available for breeding. They prefer natural ephemeral pools or ponds that mimic them.	No suitable habitat onsite. WPCP is also outside any designated critical habitat for the species. **Unlikely within project site.**

TABLE 2 SPECIAL-STATUS WILDLIFE WITH POTENTIAL TO OCCUR WITHIN THE LODI WHITE SLOUGH WPCF PROJECT AREA					
Common and Scientific Name	**Federal**	**State**	**Distribution**	**Habitat Association**	**Comments**
California red-legged frog *Rana aurora draytonii*	T	SSC	Northern California south to northern Baja California.	Permanent aquatic habitats, such as creeks and ponds with emergent and submergent vegetation; may aestivate in upland burrow during dry periods.	No suitable habitat onsite. WPCP is also outside any designated critical habitat for the species. **Unlikely within project site.**
Foothill yellow-legged frog *Rana boylii*	--	SSC	Occurs in the Klamath, Cascade, north Coast, south Coast, and Transverse Ranges; through the Sierra Nevada foothills up to approximately 6,000 feet south to Kern County.	Creeks or rivers in woodlands or forests with rock and gravel substrate and low overhanging vegetation along the edge; usually found near riffles with rocks and sunny banks nearby.	No suitable habitat onsite. **Unlikely within project site.**
Northwestern pond turtle *Clemmys marmorata marmorata*	SC	SSC	Western Washington to northern California, mostly west of the Sierra Nevada crest.	Aquatic turtle: requires ponds, slow-moving waterways such as creeks and irrigation ditches where water ponds. Prefers habitats with basking sites, aquatic vegetation, and suitable upland habitats for egg-laying.	Potential for species in ponds near the Improvement areas. Numerous known occurrences near project site. **Potentially present adjacent to project site.**
Giant garter snake *Thamnophis gigas*	T	T	Occurs in the Central Valley from Fresno north to the Gridley/Sutter Buttes area; has been extirpated from areas south of Fresno.	Found in sloughs, canals, and other small waterways, where there is a prey base of small fish and amphibians; requires grassy banks and emergent vegetation for basking, and areas of high ground protected from flooding during winter.	No suitable habitat onsite. **Unlikely within project site.**

TABLE 2 SPECIAL-STATUS WILDLIFE WITH POTENTIAL TO OCCUR WITHIN THE LODI WHITE SLOUGH WPCF PROJECT AREA					
Common and Scientific Name	**Federal**	**State**	**Distribution**	**Habitat Association**	**Comments**
Tricolored blackbird *Agelaius tricolor*	SC; MNBMC	SSC	Sacramento-San Joaquin Valleys and low foothills of coast ranges and the Sierra Nevada; Great Basin.	Nests colonially in vicinity of freshwater marshes. Prefers dense stands of tules, cattails, and brambles.	Suitable habitat, i.e., emergent marsh, not present onsite. **Unlikely within project site.**
Western burrowing owl *Athene cunicularia hypugea*	SC; MNBMC	SSC	Central and southern coastal habitats, Central Valley, Great Basin and deserts.	Open annual grasslands or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Dependent upon burrowing mammals (especially California ground squirrel) for burrows.	Site lacks undisturbed grassland or other habitats with low growing vegetation. Burrowing mammals present onsite. **Unlikely within project site.**
Swainson's hawk *Buteo swainsoni*	--	T	Lower Sacramento and San Joaquin Valleys, the Klamath Basin, and Butte Valley	Nests in oaks or cottonwoods in or near riparian habitats; forages in grasslands, irrigated pastures, and grain fields	Suitable habitat not present. Project will not disturb any trees. Not likely to nest or forage onsite. **Unlikely within project site.**
Bald eagle *Haliaeetus leucocephalus* (nesting and wintering)	T	E	Winter migrant throughout California.	Permanent water of lakes, reservoirs, and large rivers.	Suitable habitat not present. Not likely to nest or forage onsite. **Unlikely within project site.**
California black rail *Laterallus jamaicensis coturniculus*	--	T	Permanent resident in the San Francisco Bay and eastward through the Delta into Sacramento and San Joaquin counties; small populations in Marin, Santa Cruz, San Luis Obispo, Orange, Riverside, and Imperial counties.	Primarily found in tidal salt marshes associated with heavy growth of pickleweed; may also occur in brackish marshes or freshwater marshes at low elevations.	No suitable habitat onsite. **Unlikely within project site.**

TABLE 2
SPECIAL-STATUS WILDLIFE WITH POTENTIAL TO OCCUR WITHIN THE LODI WHITE SLOUGH WPCF PROJECT AREA

Common and Scientific Name	Federal	State	Distribution	Habitat Association	Comments
California clapper rail *Rallus longirostris obsoletus*	E	--	San Francisco Bay estuary	Salt and brackish marshes	No suitable habitat onsite. **Unlikely within project site.**
San Joaquin kit fox *Vulpes macrotis mutica*	E	T	Southern Kern County north to Contra Costa County on the west side of the Central Valley and near La Grange, Stanislaus County on the east side of the Valley.	Valley Sink Scrub, Valley Saltbush Scrub, Upper Sonoran Subshrub Scrub, and Annual Grassland.	No suitable habitat onsite. **Unlikely within project site.**

*** Status explanations**
Federal
E = listed as endangered under the federal Endangered Species Act.
T = listed as threatened under the federal Endangered Species Act.
D = delisted
C = Candidate for federal listing. Species for which USFWS has on file enough substantial information on biological vulnerability and threat to support proposals to list them.
MNBMC = Fish and Wildlife Service: Migratory Nongame Birds of Management Concern
SC = species of concern; formerly Category 2 candidate for federal listing.
PE = proposed for listing as endangered.
PT = proposed for listing as threatened.
-- = no listing status.
State
E = listed as endangered under the California Endangered Species Act.
R = listed as rare under the California Endangered Species Act. This category is no longer used for newly listed plants, but some plants previously listed as rare retain this designation.
T = listed as threatened under the California Endangered Species Act.
FP = fully protected under the California Fish and Game Code.
SSC = species of special concern.
-- = no listing status.