



WWTP Storage Building Project

Initial Study/Mitigated Negative Declaration

Prepared for
City of Davis

September 20, 2019

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C – City of Davis 2013 Final Initial Study/Mitigated Negative Declaration WWTP
Secondary and Tertiary Improvements Project

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Section 1 – Project Description

1.1 Introduction

The City of Davis (City) is planning a construction project (Proposed Project) which will include the addition of a pre-engineered metal storage building. The storage building will be in the existing City Wastewater Treatment Plant (WWTP). This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared in accordance with the provisions of the California Environmental Quality Act (CEQA).

In 2015, the City upgraded their WWTP (Prior Project) to meet National Pollutant Discharge Elimination System (NPDES) requirements. The environmental analysis portion of that project included a Final Initial Study/Mitigated Negative Declaration (Prior Final IS/MND) that was completed in 2013, titled “City of Davis WWTP Secondary and Tertiary Improvements Project”, see Appendix C.

The Proposed Project has environmental impacts which are similar to the Prior Project. The main differences being:

- Proposed Project is significantly smaller in scope
- Proposed Project does not include any improvements outside of the property of the WWTP as did the Prior Project

Based on these differences it can be concluded that the environmental impact of the Proposed Project will be less than the environmental impact of the Prior Project. Consequently, the City will utilize the Prior IS/MND as the basis for most of the IS/MND for the Proposed Project.

Several environmental impact considerations have been added to the CEQA guidelines since the Prior Final IS/MND was completed in 2013. These additional considerations are incorporated in this IS/MND along with the relevant information from the Prior Final IS/MND.

1.2 Project Location

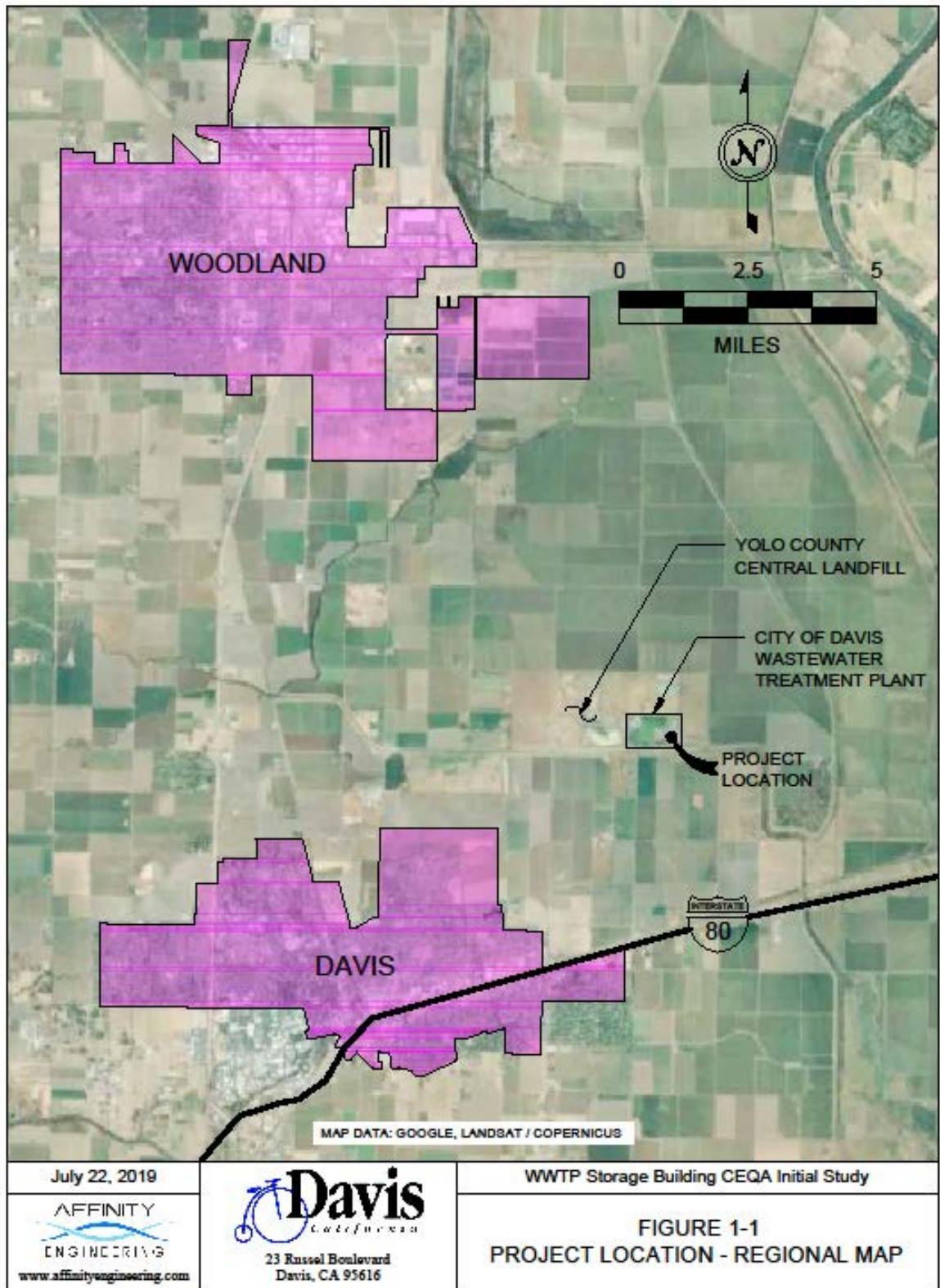
The Proposed Project within the City’s existing WWTP located at:

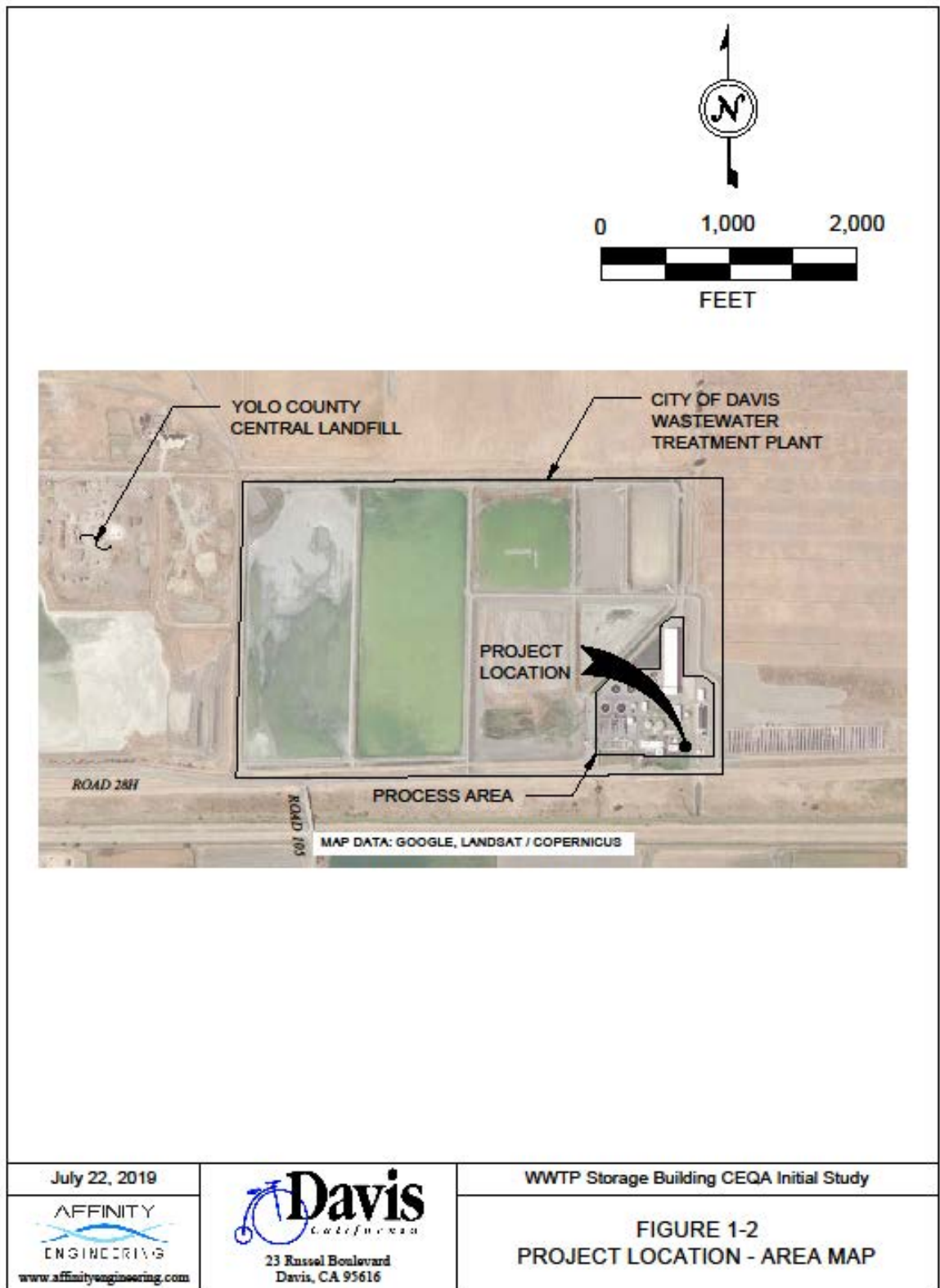
45400 County Road 28H
Davis, CA 95618

Figure 1-1 is a Regional Map indicating the project location relative to the City of Woodland, City of Davis, and Interstate 80. Figure 1-2 is the Area Map for the WWTP indicating the location of the Proposed Project within the property of the WWTP.

1.3 Project Background

The City owns and operates the WWTP. The City is planning to add indoor storage for equipment and other materials as needed during maintenance and operation of the WWTP. The indoor storage will protect the equipment from inclement weather and sunlight.





The building will not be used to store treatment process chemicals, solids derived from the treatment process, or any hazardous materials except as permitted by the WWTP's hazardous materials business plan (HMBP) or in quantities below which they are not required to be included in the HMBP.

1.4 Project Description

Architectural renderings of the storage building and a scaled site plan are included as Sheets 1 through 5 of Appendix B. The proposed project will consist of the following components:

Proposed building

- Concrete slab on grade foundation and floor
- 40-ft by 80-ft by 30-ft H prefabricated, insulated, steel building
- Pitched roof
- Solar tube style skylights for natural lighting
- Interior and exterior (attached to building) LED lighting
- 5-ton crane
- Roof and wall mounted electric exhaust fans for ventilation
- 480V three phase electrical panel, 480-240V single phase transformer, and 240/120V single phase panelboard
- Rain gutters and downspouts
- No natural Gas to building
- No potable water to building
- Fire sprinkler system fed from WWTP 3 water (3W) system

RAS PS2 Building

- New circuit breaker in existing electrical panel for 480V/3phase supply to building

Other Ancillary Improvements

- New electrical conduits and conductors installed between RAS PS2 building and proposed building
- Driveway paving
- Perimeter concrete sidewalks
- Site drainage to flow storm water to existing storm drain inlets
- New piping to extend 3W system from secondary clarifiers to building

Project Schedule

The project is planned to be completed by June 1, 2020.

Staging Area, Limits of Construction, and Site Access

Sheet 6 of Appendix B shows the contractor staging area and limits of construction for the Proposed Project.

Construction workers, equipment, and haul trucks would access the construction area primarily from Interstate 80, County Road 105, and County Road 28H. It is assumed that the existing WWTP site will be used for materials staging and storage during the installation of the building along with the grading and paving activities.

1.5 Responsible and Trustee Agencies

Agency	Permit/Approval
City of Davis	CEQA Lead Agency
City of Davis	Planning Use
City of Davis	Building Permit

1.6 Public Involvement

This IS/MND will be available for a 30-day public review period beginning on September 23, 2019 and ending on October 23, 2019. Written comments may be submitted by 3:00 p.m. on October 23, 2019 to:

Dianna Jensen, P.E.
City Engineer
City of Davis – Public Works Department
23 Russell Blvd, Davis, CA 95616

This IS/MND will be considered for certification by City Council at the City of Davis City Council November 19, 2019 meeting.

Section 2 – Initial Study Environmental Checklist

2.1 General Information

1. Proposed Project Title:
City of Davis WWTP Storage Building
2. Lead Agency Name and Address:
City Public Works Department
1717 Fifth Street
Davis, California 95616
3. Contact Person and Phone Number:
Dianna Jensen P.E.
City Engineer
(530) 757-5686
4. Proposed Project Location:
WWTP located at
45400 County Road 28H
Davis, CA 95618
5. Proposed Project Sponsor's Name and Address:
City Public Works Department
1717 Fifth Street
Davis, California 95616
6. General Plan Designation:
Public / Quasi-Public
7. Zoning:
Same as General Plan Designation
8. Description of Proposed Project:
The Proposed Project would be located east of the City of Davis in South Eastern Yolo County, California. The project area, illustrated in Figure 1-1 and Figure 1-2, is comprised primarily of agricultural land. The Proposed Project includes construction of a storage building and related site improvements (drainage, driveways, etc.)
9. Surrounding Land Uses and Setting:
Land use in the project area is predominantly agricultural in nature except that the Yolo County Central Landfill is adjacent to and west of the WWTP. Approximately 8 rural residential farmhouses are between 1 and 3 miles from the project location with one located 1/2 mile away.

10. Other public agencies whose approval is required:

Permits may be required from the City of Davis Planning and Building Departments.

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

The City sent letters to the tribe(s) explaining the project and requesting the tribes respond if they have any project concerns or desire consultation. Appendix A includes copies of the letters sent to the tribes. As of the writing of this IS/MND, the thirty day response period had not yet expired and no requests for consultation have been received.

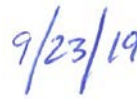
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklists on the following pages.

- | | | |
|--|---|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input checked="" type="checkbox"/> Geology / Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials |
| <input type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Wildfire | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

2.2 Determination

On the basis of this 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 Proposed 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.



Dianna R. Jensen, P.E.
City Engineer
City of Davis – Public Works Department

Date

2.3 Evaluation of Environmental Impacts

Section 2.4 summarizes the evaluation of environmental impacts for the Proposed Project and indicates whether the evaluation is from the Prior Final IS/MND or is a new evaluation for this IS/MND. Included in the evaluations are summaries of mitigations from the Prior Final IS/MND which are relevant to this IS/MND.

- 2.3.1 **Aesthetics** – evaluation from Prior Final IS/MND
- 2.3.2 **Agriculture and Forestry Resources** – evaluation from Prior Final IS/MND
- 2.3.3 **Air Quality** – evaluation from Prior Final IS/MND
- 2.3.4 **Biological Resources** – evaluation from Prior Final IS/MND
- 2.3.5 **Cultural Resources** – evaluation from Prior Final IS/MND
- 2.3.6 **Energy** – new evaluation
- 2.3.7 **Geology and Soils** – evaluation from Prior Final IS/MND except new evaluations for unique paleontological and unique geologic features
- 2.3.8 **Greenhouse Gas Emissions** – evaluation from Prior Final IS/MND
- 2.3.9 **Hazards and Hazardous Materials** - evaluation from Prior Final IS/MND
- 2.3.10 **Hydrology and Water Quality** – new evaluation except evaluation from Prior Final IS/MND for impacts to existing drainage pattern
- 2.3.11 **Land Use and Planning** – evaluation from Prior Final IS/MND
- 2.3.12 **Mineral Resources** – evaluation from Prior Final IS/MND
- 2.3.13 **Noise** - evaluation from Prior Final IS/MND
- 2.3.14 **Population and Housing** – evaluation from Prior Final IS/MND except new evaluation for displacing people
- 2.3.15 **Public Services** – evaluation from Prior Final IS/MND
- 2.3.16 **Recreation** – evaluation from Prior Final IS/MND
- 2.3.17 **Transportation** – evaluation from Prior Final IS/MND except new evaluations for geometric design features and emergency access
- 2.3.18 **Tribal Cultural Resources** – evaluation from Prior Final IS/MND except new evaluation for resources which may be significant to California Native American tribe
- 2.3.19 **Utilities and Service Systems** – evaluation from Prior Final IS/MND
- 2.3.20 **Wildfire** – new evaluation
- 2.3.21 **Mandatory Findings of Significance** – new evaluation

2.3.1 Aesthetics

Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less Than Significant w/Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade the existing visual character or quality of public views of the site and its surroundings?				X
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			X	

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

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

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

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

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

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

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

Less than Significant

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **a Less than Significant Impact**.

2.3.2 Agriculture and Forestry 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. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:	Potentially Significant Impact	Less Than Significant w/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 non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

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 non-agricultural use?

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

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

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

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

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

2.3.3 Air Quality

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

Would the project:	Potentially Significant Impact	Less Than Significant w/Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) 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?		X		
c) Expose sensitive receptors to substantial pollutant concentrations?		X		
d) Result in other emissions such as those leading to odors adversely affecting a substantial number of people?				X

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

Less than Significant

In reference to ESA's Prior Final IS/MND in Appendix C, there will be a **Less than Significant Impact**.

b) 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?

Less than Significant with Mitigation

The construction activities associated with the project include equipment to construct the building and pave and grade the project site. These construction activities are consist with activities that were evaluated in the Prior Project. Mitigation for the construction activities would include implementing most of the **Mitigation Measure AIR-1** from ESA's Prior Final IS/MND.

Mitigation Measure AIR-1:

1. Nontoxic soil stabilizers according to manufacturer's specifications shall be applied to all inactive construction areas (previously graded areas inactive for ten days or more).
2. Ground cover shall be reestablished in disturbed areas quickly.
3. Active construction sites shall be watered at least twice daily to avoid visible dust plumes.

4. Paving, applying water three times daily, or applying (non-toxic) soil stabilizers shall occur on all unpaved access roads, parking areas and staging areas at construction sites.
5. Enclosing, covering, watering daily, or applying non-toxic soil binders to exposed stockpiles (dirt, sand, etc.) shall occur.
6. A speed limit of 15 MPH for equipment and vehicles operated on unpaved areas shall be enforced.
7. All vehicles hauling dirt, sand, soil, or other loose materials shall be covered or shall be maintained at least two feet of freeboard.
8. Streets shall be swept at the end of the day if visible soil material is carried onto adjacent public paved roads.
9. Construction equipment exhaust emissions shall not exceed District Rule 2-11 Visible Emission limitations.
10. Construction equipment shall minimize idling time to 10 minutes or less.
11. The prime contractor shall submit to the City a comprehensive inventory (i.e., make, model, year, emission rating) of all the heavy-duty off-road equipment (50 horsepower or greater) that will be used an aggregate of 40 or more hours for the construction project.
12. City personnel, with assistance from the California Air Resources Board (CARB), will conduct initial Visible Emission Evaluations (VEE) of all heavy-duty equipment on the inventory list.
13. An enforcement plan shall be established to weekly evaluate project-related on- and off-road heavy-duty vehicle engine emission opacities, using standards as defined in California Code of Regulations, Title 13, Sections 2180 - 2194.
14. An Environmental Coordinator, CARB-certified to perform Visible Emissions Evaluations (VEE)
15. VEE shall routinely evaluate project related off-road and heavy duty on-road equipment emissions for compliance with this requirement.
16. Operators of vehicles and equipment found to exceed opacity limits will be notified and the equipment must be repaired within 72 hours.

Construction contracts shall stipulate that at least 20% of the heavy-duty off-road equipment included in the inventory be powered by CARB certified off-road engines, as follows:

- 175 hp - 750 hp 1996 and newer engines
- 100 hp - 174 hp 1997 and newer engines
- 50 hp- 99 hp 1998 and newer engines

In lieu of or in addition to this requirement, the City may use other measures to reduce particulate matter and nitrogen oxide emissions from project construction through the use of emulsified diesel fuel and or particulate matter traps. These alternative measures, if proposed, shall be developed in consultation with YSAQMD staff.

This is consistent with ESA's Prior Final IS/MND findings in Appendix C. As a result, the Proposed Project would have a **Less than Significant Impact with Mitigation** with the implementation of **Mitigation Measure AIR-1** as described above.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant with Mitigation

Diesel emissions would result both from diesel-powered construction vehicles and any diesel trucks associated with project operation. These vehicle emissions are consist with the emissions that were evaluated in the Prior Project.

The Proposed Project would not result in substantial emissions of any criteria air pollutants either during construction or operation with the implementation of **Mitigation Measure AIR-1** as identified in subsection b) above. As a result, the Proposed Project would have a **Less than Significant Impact with Mitigation**.

d) Result in other emissions such as those leading to odors adversely affecting a substantial number of people?

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

2.3.4 Biological Resources

Would the project:	Potentially Significant Impact	Less Than Significant w/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?		X		
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 US Fish and Wildlife Service?				X
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
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?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
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?				X

- 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?**

Less than Significant with Mitigation

The Proposed Project will have similar construction activities that were performed as the Prior Project therefore the biological environmental mitigation measures

associated with the work at the WWTP will be based on ESA's Final IS/MND. These mitigation measures include the following:

Mitigation Measure BIO-1 (Giant Garter Snake):

In order to ensure that impacts to giant garter snake and its habitat shall be avoided or reduced, the following measures shall be implemented to reduce the potential impact to the giant garter snake to less than significant as follows:

1. No less than 24-hours prior to the commencement of construction activities, a preconstruction survey shall be conducted to survey for giant garter snakes by a USFWS-approved biologist. The biologist will provide the USFWS with a written report that adequately documents the monitoring efforts within 24-hours of commencement of construction activities. Areas where construction has commenced shall be re-inspected by the monitoring biologist whenever a lapse in construction activity of two weeks or greater has occurred.
2. An on-call biologist shall be available for construction personnel to contact in the event that giant garter snake is encountered in the construction zone.

Mitigation Measure BIO-2 (Burrowing Owl):

1. If burrowing owls are discovered within 250 feet of the project site during construction, construction will stop, and a qualified biologist (as approved by CDFW) shall be notified immediately. Occupied burrows should not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by the CDFW verifies through non-invasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival. The qualified biologist will notify the City when construction can restart.

Mitigation Measure BIO-3 (Western Pond Turtle):

1. No more than two weeks prior to the commencement of ground-disturbing activities, the applicant will retain a qualified biologist to survey the project site for the western pond turtle and to install temporary barriers to be placed around the construction site to prevent ingress.
2. Construction shall not proceed until the construction zone is determined to be free of turtles. During construction, the contractor shall notify the biologist of any turtles that enter the construction zone with the biologist responsible for relocating adult turtles.

This Proposed Project is consistent with ESA's Prior Final IS/MND Biological Evaluation findings in Appendix C. As a result, the Proposed Project would have a **Less than Significant Impact with Mitigation** with the implementation of **Mitigation Measures BIO-1, BIO-2, and BIO-3** as described above.

- 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 US Fish and Wildlife Service?**

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

- c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

- 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?**

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

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

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

- f) 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?**

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

2.3.5 Cultural Resources

Would the project:	Potentially Significant Impact	Less Than Significant w/Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		X		
c) Disturb any human remains, including those interred outside of formal cemeteries?		X		

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

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

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

Less than Significant with Mitigation

The Proposed Project location is adjacent to the WWTP improvements in the Prior Project and should have similar findings. Because of this, the Cultural environmental mitigation measure associated with the discovery of archaeological materials at the WWTP will be based on ESA's Final IS/MND. This mitigation measures include the following:

Mitigation Measure CUL-1 (Archaeological):

1. If previously undiscovered cultural resources are encountered, all activity in the vicinity of the find shall cease until it can be evaluated by a qualified archaeologist. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-period materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. If the archaeologist determines that the resources may be significant, they will notify the City. An appropriate treatment plan for the resources should be developed. The archaeologist shall consult with Native American representatives in determining appropriate treatment for prehistoric or Native American cultural resources.

With the inclusion of Mitigation Measure CUL-1, the project impact would be **Less than Significant with Mitigation**.

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

Less than Significant with Mitigation

The Proposed Project location is adjacent to the WWTP improvements in the Prior Project and should have similar findings. Because of this, the Cultural environmental mitigation measure associated with the discovery of human remains at the WWTP will be based on ESA's Final IS/MND. This mitigation measures include the following:

Mitigation Measure CUL-2 (Skeletal Remains):

1. If human skeletal remains are uncovered during project construction, the project proponent will immediately halt work, contact the Yolo County coroner to evaluate the remains, and follow the procedures and protocols set forth in Section 15064.5 (e)(1) of the CEQA Guidelines. If the County coroner determines that the remains are Native American, the project proponent will contact the NAHC, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by AB 2641). Per Public Resources Code 5097.98, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section (PRC 5097.98), with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.

With the implementation of Mitigation Measure CUL-2, the project impact would be **Less than Significant with Mitigation**.

2.3.6 Energy

Would the project:	Potentially Significant Impact	Less Than Significant w/Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?				X
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				X

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

No Impact

The building is a prefabricated building that will be assembled onsite. These types of buildings are efficiently constructed due to the parts having been previously engineered and manufactured. The building will be insulated and be provided with forced air ventilation. No heating or air conditioning will be provided. The lighting will be LED and solar tube style skylights will be provided to minimize interior lighting use during the day. With this type of construction and features there will be **No Impact**.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact

The building includes solar tube style skylights for natural interior building lighting during the day and LED lighting. The building will not conflict or obstruct any state or local plan for renewable energy or energy and there will be **No Impact**.

2.3.7 Geology and Soils

Would the project:	Potentially Significant Impact	Less Than Significant w/Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential				
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.				X
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?			X	
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?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?			X	
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		

a) Directly or indirectly cause 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.

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

ii) Strong seismic ground shaking?

Less than Significant Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **a Less than Significant Impact**.

iii) Seismic-related ground failure, including liquefaction?

Less than Significant Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **a Less than Significant Impact**.

iv) Landslides?

Less than Significant Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **a Less than Significant Impact**

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

Less than Significant Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **a Less than Significant Impact**

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?

Less than Significant Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **a Less than Significant Impact**

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

Less than Significant Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **a Less than Significant Impact**

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

Less than Significant Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **a Less than Significant Impact**

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

Less than Significant with Mitigation

This environmental analysis was originally addressed in the Cultural Resources section of ESA's Prior Final IS/MND analysis in Appendix C. In the unlikely event that there is a discovery of a paleontological resource or unique geological feature occurs during construction, the following mitigation measures will be implemented:

Mitigation Measure GEO-1 (Paleontological Resource):

1. If previously undiscovered Paleontological resources are encountered, all activity in the vicinity of the find shall cease until it can be evaluated by a qualified paleontologist. Paleontological resources may include fossilized remains, traces or imprints of organism. If the paleontologist determines that the resources may be significant, they will notify the City. An appropriate treatment plan for the resources should be developed.

Mitigation Measure GEO-2 (Unique Geological Feature):

1. If previously undiscovered unique geological features are encountered, all activity in the vicinity of the find shall cease until it can be evaluated by a qualified geologist. Unique geological features may include folds in sedimentary rock layers, fault lines, underground rivers. If the geologist determines that the feature may be significant, they will notify the City. An appropriate treatment plan for the feature should be developed.

With the implementation of Mitigation Measures GEO-1 and GEO-2, the project impact would be **Less than Significant with Mitigation**.

2.3.8 Greenhouse Gas (GHG) Emissions

Would the project:	Potentially Significant Impact	Less Than Significant w/Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **a Less than Significant Impact**.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Significant

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **a Less than Significant Impact**.

2.3.9 Hazards and Hazardous Materials

Would the project:	Potentially Significant Impact	Less Than Significant w/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?			X	
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?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one- quarter mile of an existing or proposed school?				X
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?				X
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 or excessive noise for people residing or working in the project area?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
g) Expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?				X

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant

In reference to ESA's Prior Final IS/MND in Appendix C, there will be a **Less than Significant Impact**.

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?

Less than Significant

In reference to ESA's Prior Final IS/MND in Appendix C, there will be a **Less than Significant Impact**.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

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?

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **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 or excessive noise for people residing or working in the project area?

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

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

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

g) Expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

2.3.10 Hydrology and Water Quality

Would the project:	Potentially Significant Impact	Less Than Significant w/Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?				X
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				X
c) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:				
i) result in substantial erosion or siltation on- or off-site:			X	
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite:			X	
iii) 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:			X	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				X

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?*No Impact*

The project consists of construction a storage building with no potable water service. There are no expected waste discharges associate with the project and therefore would result in **No Impact** to water quality standards or waste discharge requirements at the WWTP.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No Impact

Implementation of the Proposed Project would not use or otherwise interfere with the recharge of groundwater supplies and there would be **No Impact**.

c) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:

i) result in substantial erosion or siltation on- or off-site:

Less than Significant

In reference to ESA's Prior Final IS/MND in Appendix C, there will be a **Less than Significant Impact**.

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite:

Less than Significant

In reference to ESA's Prior Final IS/MND in Appendix C, there will be a **Less than Significant Impact**.

iii) 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:

Less than Significant

In reference to ESA's Prior Final IS/MND in Appendix C, there will be a **Less than Significant Impact**.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less than Significant with Mitigation

The City has constructed a floodwall to protect the WWTP. The height of the levee does not meet the FEMA required 3 ft freeboard during a 100 year flood event. To address this, the City has recently completed a hydrologic statistical analysis and submitted this analysis to FEMA to support the City's Conditional Letter of Map Revision (CLOMR) request. With the acceptance of the request by FEMA on the levee height, the WWTP will have 100 year flood protection resulting in a **Less than Significant Impact**.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No impact

The project has no water service and therefore will have **No Impact**.

2.3.11 Land Use and Planning

Would the project:	Potentially Significant Impact	Less Than Significant w/Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?				X
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				X

a) Physically divide an established community?*No Impact*

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*No Impact*

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

2.3.12 Mineral Resources

Would the project:	Potentially Significant Impact	Less Than Significant w/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?				X
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?				X

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?

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

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?

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

2.3.13 Noise

Would the project:	Potentially Significant Impact	Less Than Significant w/Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generation of noise levels of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
c) For a project located within the vicinity of a private air strip or 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?				X

a) Generation of noise levels of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than Significant

In reference to ESA's Prior Final IS/MND in Appendix C, there will be a **Less than Significant Impact**.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant

In reference to ESA's Prior Final IS/MND in Appendix C, there will be a **Less than Significant Impact**.

c) For a project located within the vicinity of a private air strip or 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?

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be a **No Impact**.

2.3.14 Population and Housing

Would the project:	Potentially Significant Impact	Less Than Significant w/Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial unplanned 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)?			X	
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

a) Induce substantial unplanned 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)?

Less than Significant

In reference to ESA's Prior Final IS/MND in Appendix C, there will be a **Less than Significant Impact**.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact

The Project would not require the demolition of existing housing, thereby necessitating the construction of housing elsewhere. Therefore, there would be **No Impact** associated with the displacement of housing or people.

2.3.15 Public Services

Would the project:	Potentially Significant Impact	Less Than Significant w/Mitigation Incorporated	Less Than Significant Impact	No Impact
a) 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: <ul style="list-style-type: none"> • Fire protection? Police protection? Schools? • Parks? • Other public facilities? 			X	

a) 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:

- **Fire protection? Police protection? Schools?**
- **Parks?**
- **Other public facilities?**

Less than Significant

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **a Less than Significant Impact.**

2.3.16 Recreation

Would the project:	Potentially Significant Impact	Less Than Significant w/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?			X	
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?				X

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?

Less than Significant

In reference to ESA's Prior Final IS/MND in Appendix C, there will be a **Less than Significant Impact**.

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?

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

2.3.17 Transportation

Would the project:	Potentially Significant Impact	Less Than Significant w/Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?			X	
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
d) Result in inadequate emergency access?				X

a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Less than Significant Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be a **Less than Significant Impact**.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less than Significant Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be a **Less than Significant Impact**.

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

No Impact

There are no curves, dangerous intersections, or incompatible uses associated with this project resulting in **No Impact**.

d) Result in inadequate emergency access?

No Impact

The project would have **No Impact** on the current emergency access to or at the WWTP.

2.3.18 Tribal Cultural Resources

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Potentially Significant Impact	Less Than Significant w/Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or				X
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.			X	

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**. The analysis for this item in the Prior Final IS/MND was provided in Cultural Resources section.

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less than Significant Impact

The project does not anticipate a significance resource to a California Native American tribe. The City has sent tribal notification letters to local Native American Indian Tribes that notifies them of the project and provides them the opportunity to request a consultation resulting in a **Less than Significant Impact**.

2.3.19 Utilities and Service Systems

Would the project:	Potentially Significant Impact	Less Than Significant w/Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?				X
b) Have sufficient water supplies available to serve the project from reasonably foreseeable future development during normal, dry and multiple dry years?				X
c) 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?				X
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				X

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

b) Have sufficient water supplies available to serve the project from reasonably foreseeable future development during normal, dry and multiple dry years?

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**. The building does not have a water service.

c) 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?

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**. The building does not have a wastewater service.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less than Significant

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **a Less than Significant Impact**.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact

In reference to ESA's Prior Final IS/MND in Appendix C, there will be **No Impact**.

2.3.20 Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant w/Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				X
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				X
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				X

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact

The project will have **No Impact** on any emergency response or evacuation plans.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact

The project will have **No Impact** on exacerbating local wildfires.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact

The project does not require the infrastructure that would exacerbate fire risk resulting in **No Impact**.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact

This project will not expose people or structures to significant risks associated with flooding or landslides associated with wildfires resulting in **No Impact**.

2.3.21 Mandatory Findings of Significance

Would the project:	Potentially Significant Impact	Less Than Significant w/Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially 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, substantially 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?		X		
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)?				X
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

a) Does the project have the potential to substantially 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, substantially 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?

Less than Significant with Mitigation

As shown previously, the following environmental evaluation sections would result in potentially significant temporary impacts as a result of construction and would have the potential to degrade the quality of the environment for this project.

- Air Quality
- Biological Resources
- Cultural Resources
- Geology/Soils
- Mandatory Findings of Significance

However, adoption and implementation of mitigation measures described in this Initial Study along with the environmental analysis performed in the Prior Final IS/MND would reduce these impacts to **Less than Significant**.

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)?

No Impact

The impacts of the Proposed Project are individually limited and not considered "cumulatively considerable" and therefore are **No Impact**.

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

Less than Significant

Temporary impacts to human beings through degradation of local air quality could occur during construction. However, with implementation of mitigation measures provided in the Air Quality sections, these temporary impacts would be **Less than Significant**.

Appendix A

Tribal Letters



PUBLIC WORKS –
ENGINEERING & TRANSPORTATION DEPARTMENT
1717 Fifth Street – Davis, California 95616
(530) 747-5846 – TDD: (530) 757-5666
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September 20, 2019

Anthony Roberts, Chairperson
Yocha Dehe Wintun Nation
P.O. Box 18
Brooks, CA 95606

FROM: James Carson, Affinity Engineering on behalf of the City of Davis

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of determination that a Project Application is Complete or Decision to Undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1 (hereafter PRC).

Dear Chairperson Roberts:

The City of Davis has determined that a project application is complete for the City of Davis Waste Water Treatment Plant New Storage Building. Below please find a description of the proposed project, a map showing the project location (Exhibit A), and the name of our project point of contact, pursuant to PRC § 21080.3.1 (d).

The City proposes to construct a new 40 ft wide by 80 ft long by 24 ft high storage building at its existing wastewater treatment plant. The proposed project is located at 45400 Co Rd 28H, Woodland, CA 95776. The proposed project also includes onsite paving and grading for building access along with some trenching to connect the building to the onsite electrical and water.

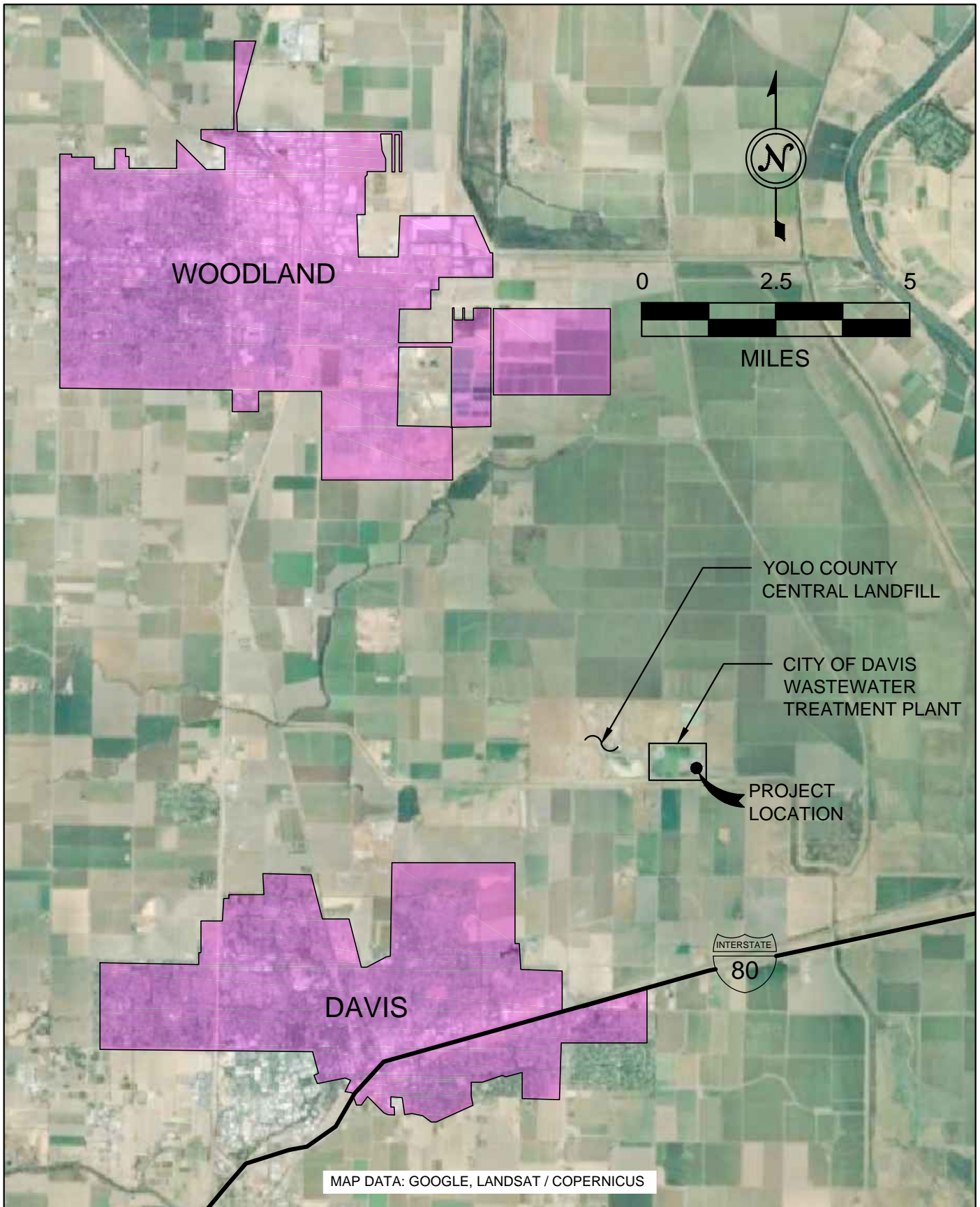
The City's point of contact for this project is James D. Carson, Affinity Engineering Inc., jcarson@affinityengineering.com, (916) 613-7582.

Pursuant to PRC § 21080.3.1 (b), you have 30 days from the receipt of this letter to request consultation, in writing, with the City of Davis.

Very Respectfully,

A handwritten signature in blue ink, appearing to read "Dianna R. Jensen", with a long horizontal flourish extending to the right.

Dianna R. Jensen, P.E.
City Engineer



September 20, 2019

AFFINITY
ENGINEERING
www.affinityengineering.com

Davis
California
23 Russel Boulevard
Davis, CA 95616

WWTP Storage Building Tribal Consultation Request

EXHIBIT A
PROJECT LOCATION - REGIONAL MAP



PUBLIC WORKS –
ENGINEERING & TRANSPORTATION DEPARTMENT
1717 Fifth Street – Davis, California 95616
(530) 747-5846 – TDD: (530) 757-5666
www.cityofdavis.org/ET

September 20, 2019

Gene Whitehouse, Chairperson
United Auburn Indian Community Tribal Office
10720 Indian Hill Road
Auburn, CA 95603

FROM: James Carson, Affinity Engineering on behalf of the City of Davis

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of determination that a Project Application is Complete or Decision to Undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1 (hereafter PRC).

Dear Chairperson Whitehouse:

The City of Davis has determined that a project application is complete for the City of Davis Waste Water Treatment Plant New Storage Building. Below please find a description of the proposed project, a map showing the project location (Exhibit A), and the name of our project point of contact, pursuant to PRC § 21080.3.1 (d).

The City proposes to construct a new 40 ft wide by 80 ft long by 24 ft high storage building at its existing wastewater treatment plant. The proposed project is located at 45400 Co Rd 28H, Woodland, CA 95776. The proposed project also includes onsite paving and grading for building access along with some trenching to connect the building to the onsite electrical and water.

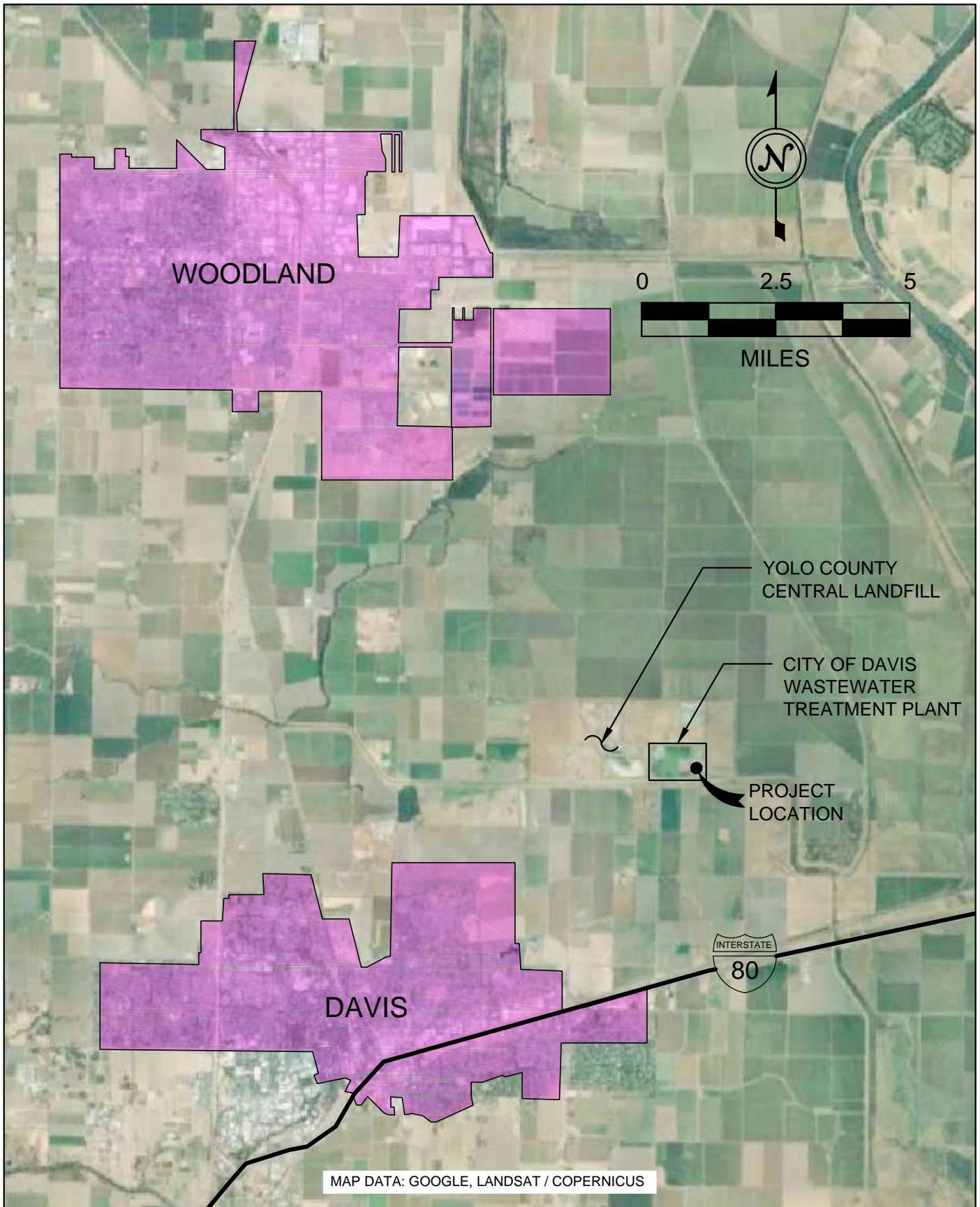
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Dianna R. Jensen, P.E.
City Engineer



MAP DATA: GOOGLE, LANDSAT / COPERNICUS

September 20, 2019

AFFINITY
ENGINEERING
www.affinityengineering.com

Davis
California
23 Russel Boulevard
Davis, CA 95616

WWTP Storage Building Tribal Consultation Request

EXHIBIT A
PROJECT LOCATION - REGIONAL MAP



PUBLIC WORKS –
ENGINEERING & TRANSPORTATION DEPARTMENT
1717 Fifth Street – Davis, California 95616
(530) 747-5846 – TDD: (530) 757-5666
www.cityofdavis.org/ET

September 20, 2019

Charlie Wright, Chairperson
Cortina Rancheria – Kletsel Dehe Band of Wintun Indians
P.O. Box 1630
Williams, CA 95987

FROM: James Carson, Affinity Engineering on behalf of the City of Davis

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of determination that a Project Application is Complete or Decision to Undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1 (hereafter PRC).

Dear Chairperson Wright:

The City of Davis has determined that a project application is complete for the City of Davis Waste Water Treatment Plant New Storage Building. Below please find a description of the proposed project, a map showing the project location (Exhibit A), and the name of our project point of contact, pursuant to PRC § 21080.3.1 (d).

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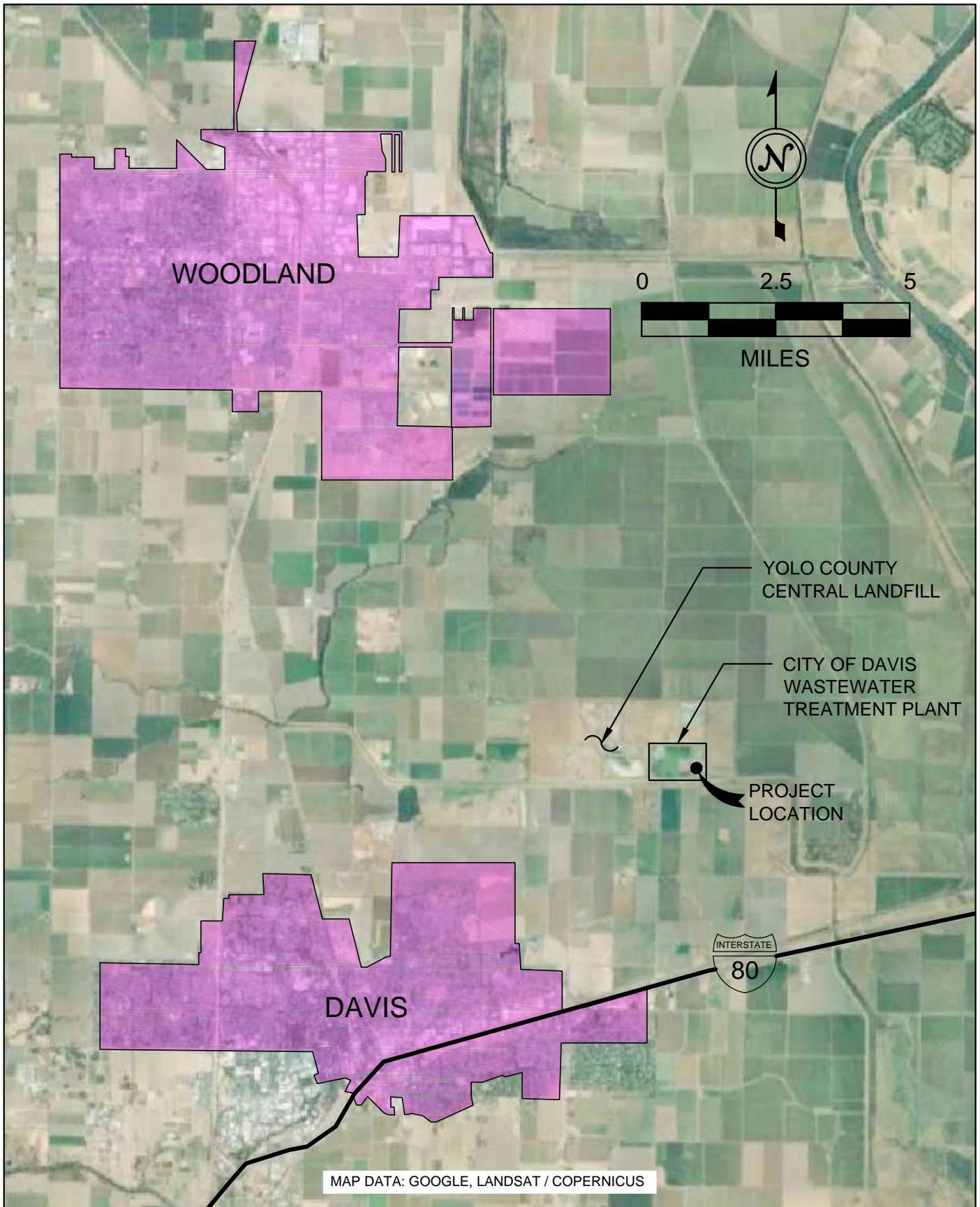
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Very Respectfully,

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Dianna R. Jensen, P.E.
City Engineer



September 20, 2019

AFFINITY
ENGINEERING
www.affinityengineering.com

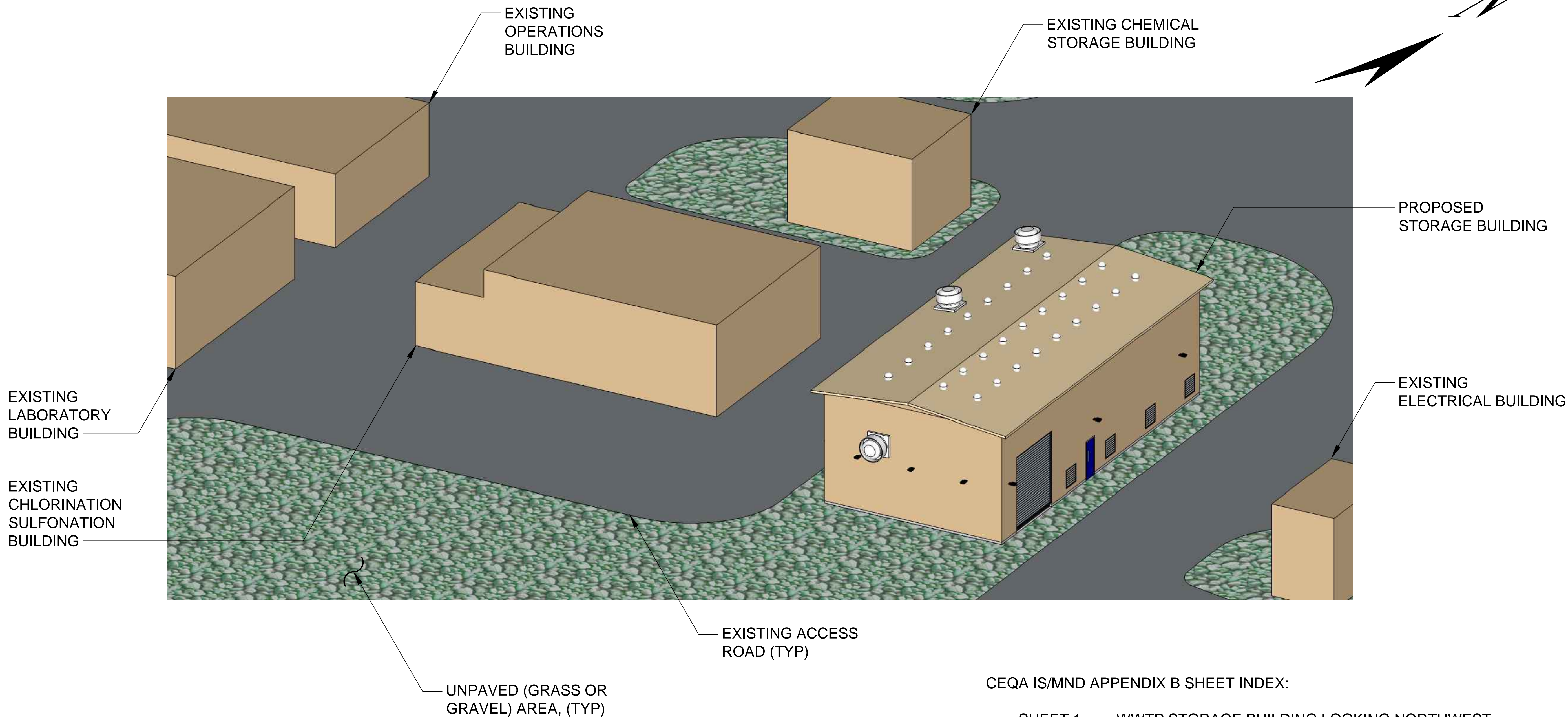
Davis
California
23 Russel Boulevard
Davis, CA 95616

WWTP Storage Building Tribal Consultation Request

EXHIBIT A
PROJECT LOCATION - REGIONAL MAP

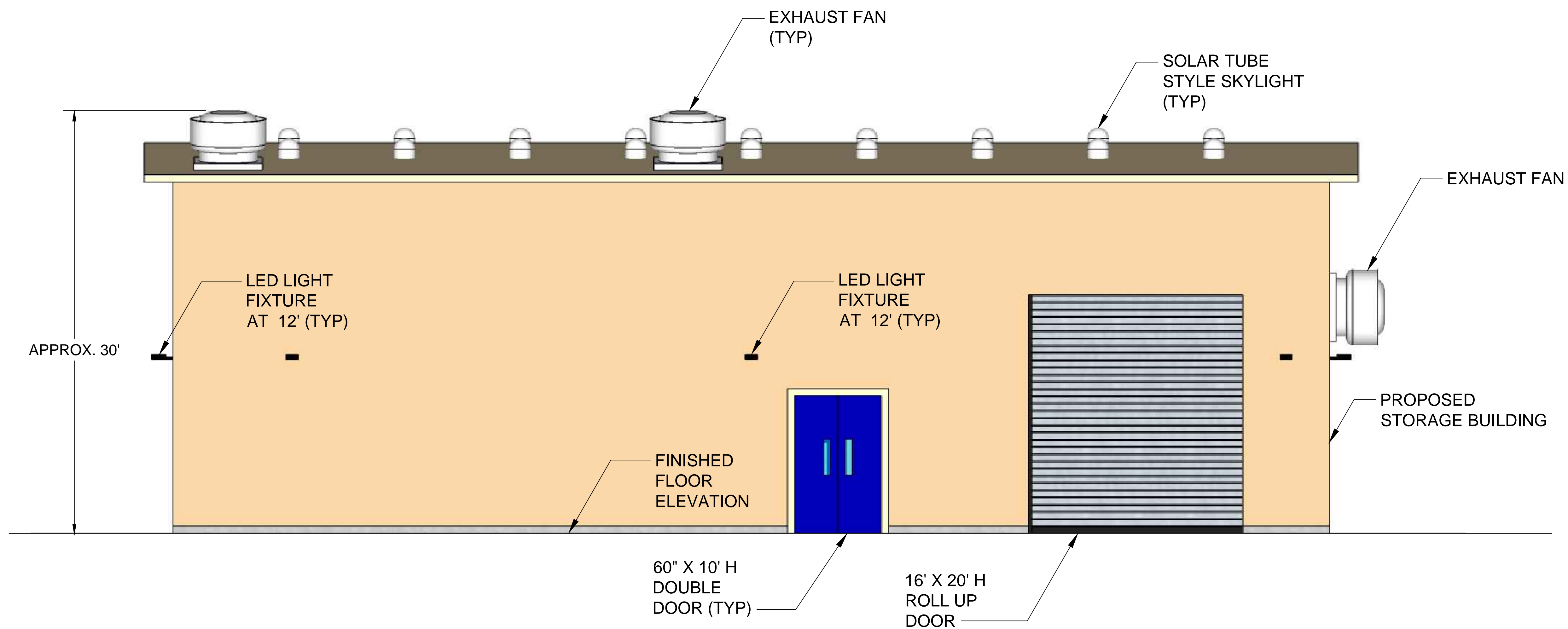
Appendix B

**Drawings of Architectural Renderings, Site Plan,
Contractor Staging and Limits of Construction
(Sheets 1 through 6)**

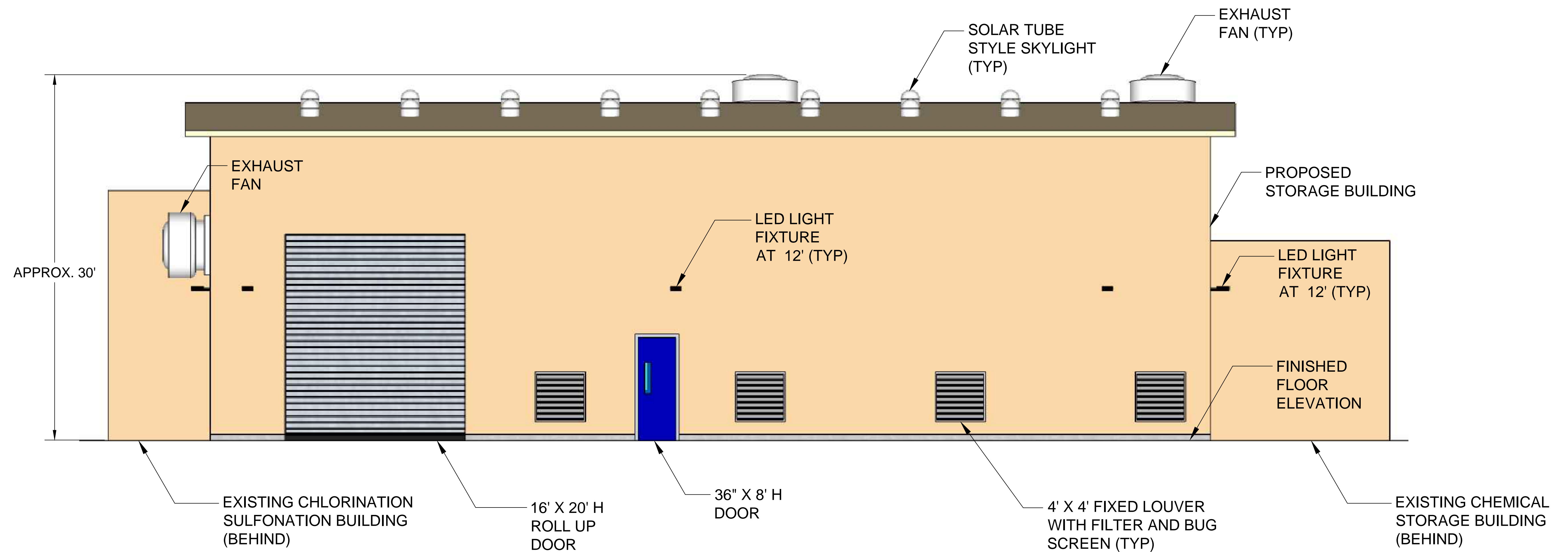


CEQA IS/MND APPENDIX B SHEET INDEX:

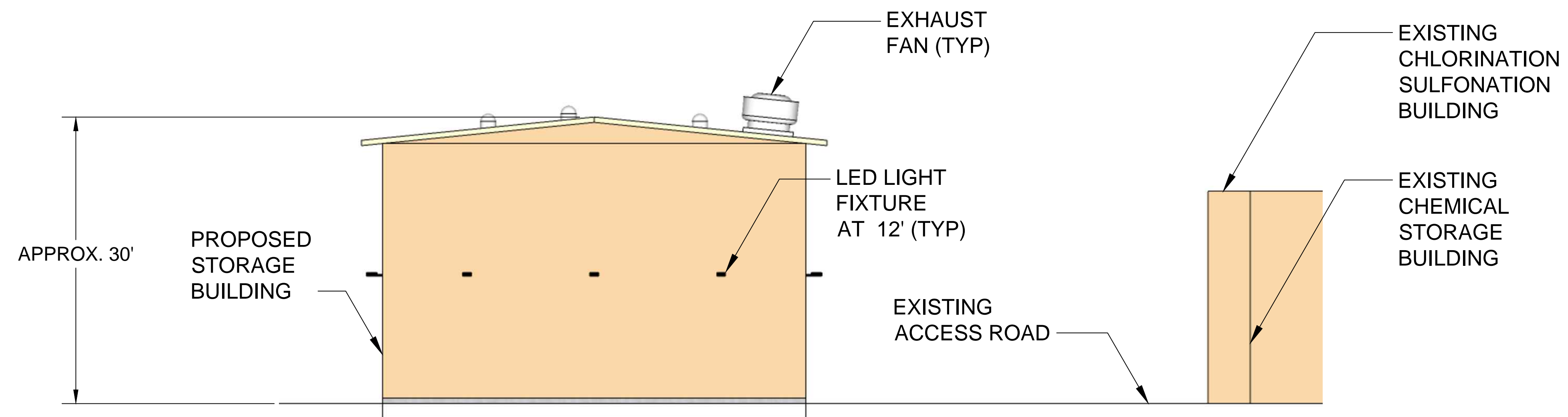
SHEET 1	WWTP STORAGE BUILDING LOOKING NORTHWEST
SHEET 2	WWTP STORAGE BUILDING WEST ELEVATION
SHEET 3	WWTP STORAGE BUILDING EAST ELEVATION
SHEET 4	WWTP STORAGE BUILDING NORTH AND SOUTH ELEVATIONS
SHEET 5	WWTP STORAGE BUILDING SITE PLAN
SHEET 6	WWTP STORAGE BUILDING CONTRACTOR STAGING AREA AND LIMITS OF CONSTRUCTION



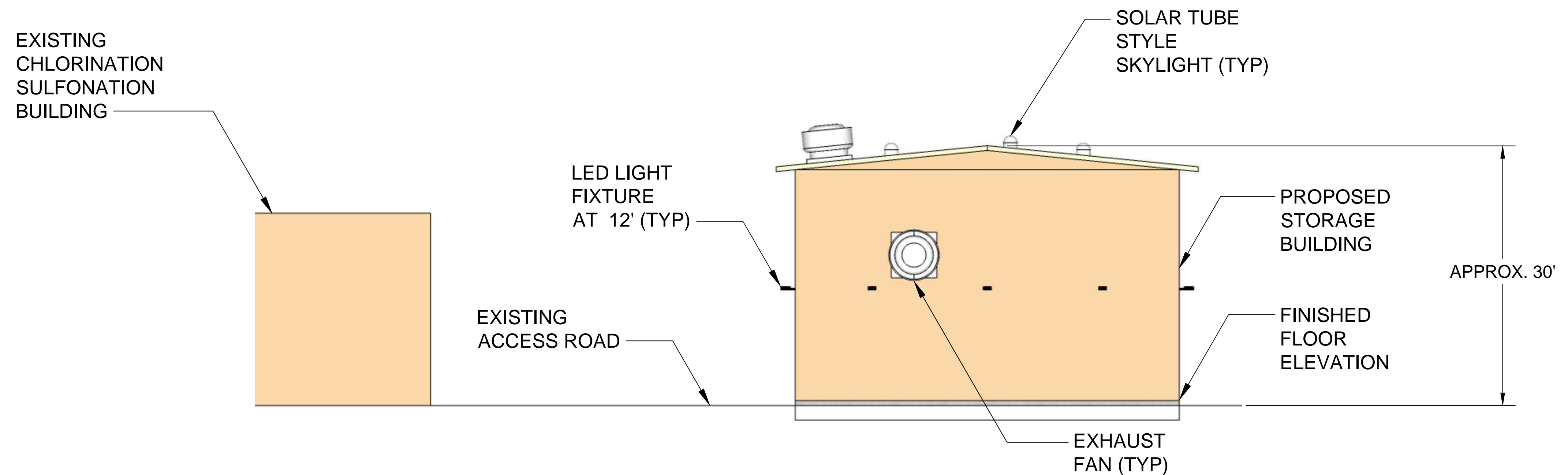
WEST ELEVATION



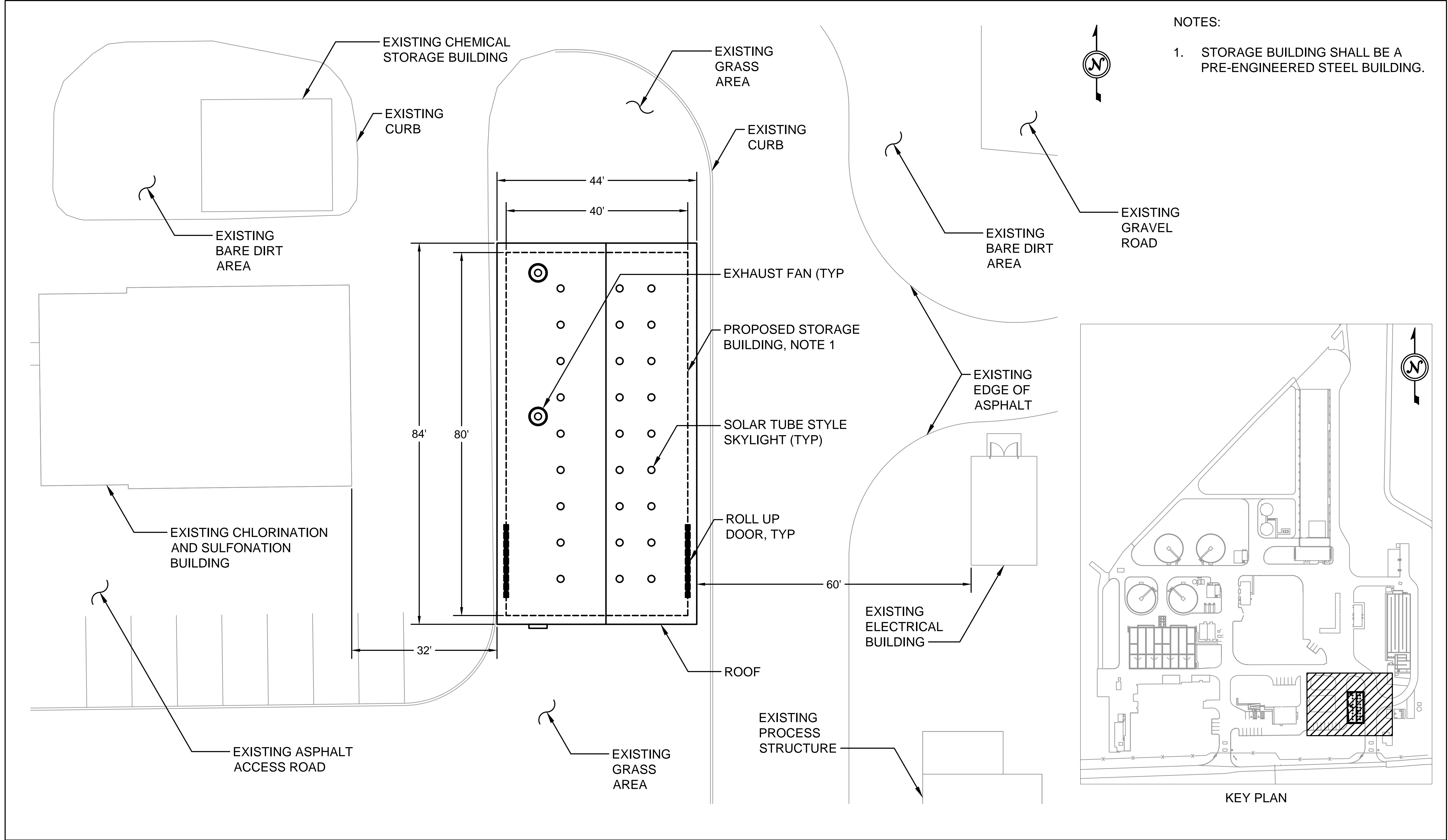
EAST ELEVATION

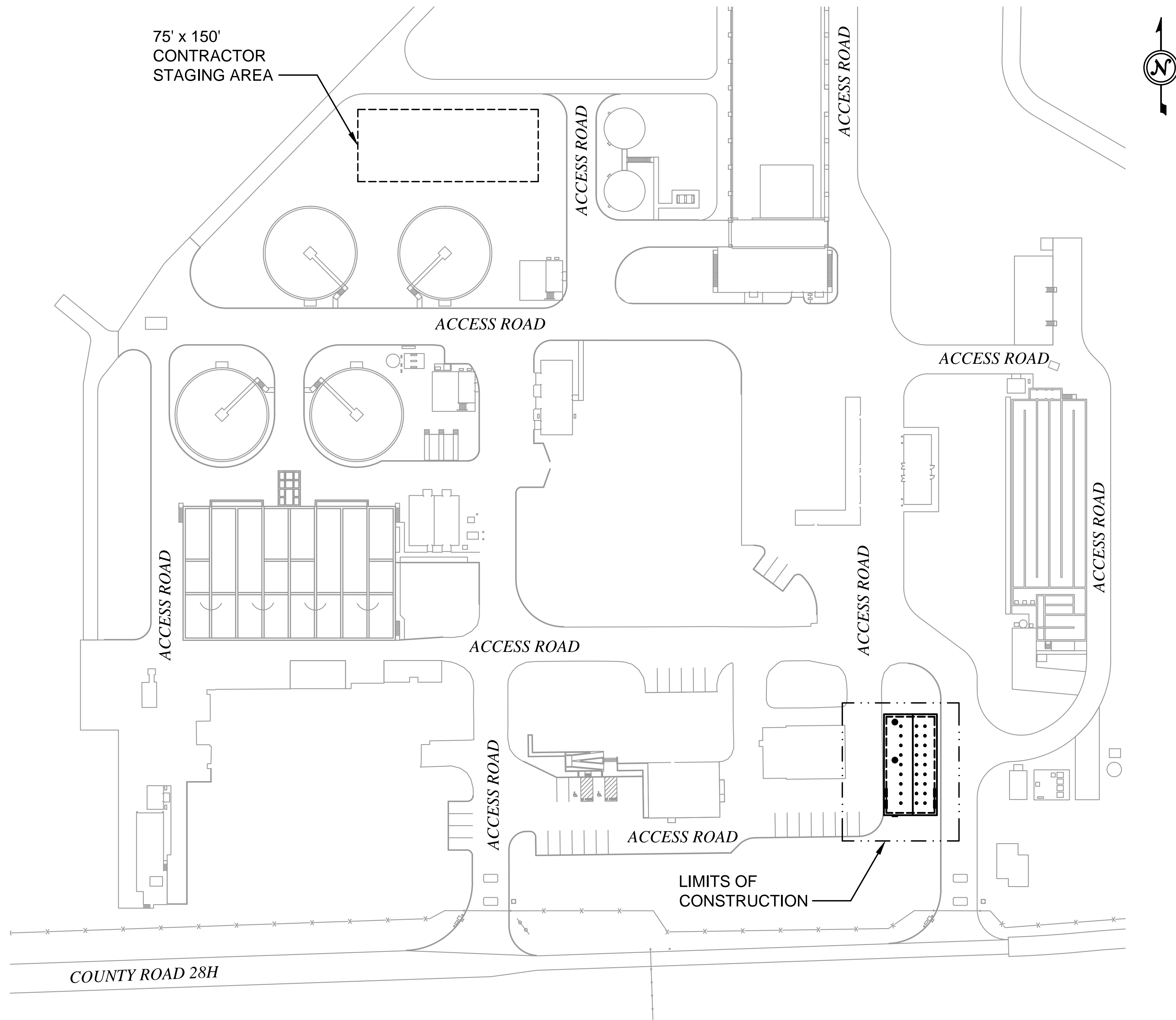


NORTH ELEVATION



SOUTH ELEVATION





Appendix C

City of Davis

2013 Final Initial Study/Mitigated Negative Declaration WWTP Secondary and Tertiary Improvements Project

CITY OF DAVIS WWTP SECONDARY AND TERTIARY IMPROVEMENTS PROJECT

Final Mitigated Negative Declaration

Prepared for
City of Davis

June 2013



CITY OF DAVIS WWTP SECONDARY AND TERTIARY IMPROVEMENTS PROJECT

Final Mitigated Negative Declaration

Prepared for
City of Davis

June 2013



2600 Capitol Avenue
Suite 200
Sacramento, CA 95816
916.564.4500
www.esassoc.com

Los Angeles

Oakland

Orlando

Palm Springs

Petaluma

Portland

San Diego

San Francisco

Santa Cruz

Seattle

Tampa

Woodland Hills

209071

OUR COMMITMENT TO SUSTAINABILITY | ESA helps a variety of public and private sector clients plan and prepare for climate change and emerging regulations that limit GHG emissions. ESA is a registered assessor with the California Climate Action Registry, a Climate Leader, and founding reporter for the Climate Registry. ESA is also a corporate member of the U.S. Green Building Council and the Business Council on Climate Change (BC3). Internally, ESA has adopted a Sustainability Vision and Policy Statement and a plan to reduce waste and energy within our operations. This document was produced using recycled paper.

TABLE OF CONTENTS

City of Davis WWTP Secondary and Tertiary Improvement Project Final Mitigated Negative Declaration

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2.1 Introduction	2-1
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B. Notice of Completion	
C. Public Notice of Availability	
D. May 10, 2011 Davis Enterprise Public Notice	
E. Final Mitigation Monitoring and Reporting Program	

CHAPTER 1

Introduction

1.1 CEQA and Public Review Process

Pursuant to the requirements of the California Environmental Quality Act (CEQA), the Lead Agency, the City of Davis, prepared a Draft Initial Study/Mitigated Negative Declaration (IS/MND) (Appendix A) to address the potential impacts associated with the City of Davis WWTP Secondary and Tertiary Improvement Project (proposed project). The Draft IS/MND determined that the proposed project would not have a significant adverse effect on the environment.

On May 10, 2013 the City of Davis filed a Notice of Completion (NOC) (Appendix B) with the Governor's Office of Planning and Research (State Clearinghouse), published a Notice of Intent (NOI) to adopt a MND with the Yolo County Clerk Recorder (Appendix C), and released the Draft IS/MND for a 30-day public review period. The Draft IS/MND was distributed to state and local agency representatives, and other interested individuals. A Public Notice was published in the Davis Enterprise on May 10, 2013 (Appendix D), announcing the availability of the Draft IS/MND for public review in compliance with CEQA. In accordance with Section 15105(b) CEQA Guidelines, the public review and comment period began on May 10, 2013 and ended on June 10, 2013. A summary of the comments received on the Draft IS/MND are contained in this Final MND¹.

This Final MND has been prepared pursuant to CEQA Guidelines², which outline all aspects of the preparation of the Draft IS/MND and its review, as well as the subsequent steps to preparing a Notice of Determination. This document incorporates comments from public agencies, and the general public, and contains responses by the Lead Agency, the City of Davis, to those comments. The sole intent and purpose of the Final IS/MND is to provide corrections and clarity to certain facts set forth in the Draft IS/MND to ensure accuracy. No new significant environmental impacts are identified in this Final IS/MND.

¹ The Final IS/MND is a combination of this Response to Comment Document and the Draft IS/MND included as Appendix A.

² Title 14, California Code of Regulations, Chapter 3, Sections 15000 – 15387 and Appendices, accessible at http://ceres.ca.gov/topic/env_law/ceqa/guidelines/

The Final IS/MND is an informational document prepared by the City of Davis to be used by decision makers before approving or denying a proposed project. This document consists of the following:

- a. A description of the CEQA process including the public review process (Section 1.1)
- b. A list of persons, organizations, and public agencies commenting on the Draft IS/MND (Section 2.2)
- c. Comments and Responses to Comments received on the Draft IS/MND (Chapter 2)
- d. Draft IS/MND (Appendix A)
- e. Notice of Completion (Appendix B)
- f. Notice of Availability (Appendix C)
- g. May 10 , 2011 Davis Enterprise Public Notice (Appendix D)
- h. Final Mitigation Monitoring, and Reporting Program (Appendix E)

CHAPTER 2

Responses to Comments

2.1 Introduction

This section provides individual responses to written comments received from agencies and interested persons commenting on the Draft Initial Study/Mitigated Negative Declaration (IS/MND). Each comment letter was assigned a numerical designation (i.e., 1, 2, etc.) corresponding with the number assigned in Table 2-1. Each comment letter has been reproduced in its entirety followed by the responses to each comment within the letter. Where a response to a similar comment has been provided in another response the reader is referred to the appropriate response or section.

Note that some minor modifications for clarity and continuity have been made to the Draft IS/MND since its release for public review and comment. None of the modifications alter any conclusions reached in the Draft IS/MND or provide new information of substantial importance relative to the draft document that would require recirculation of the Draft IS/MND pursuant to California Environmental Quality Act (CEQA) Guidelines §15073.5. To facilitate identification, modifications to the document are included as **bold underlined** text and text removed from the document is indicated by ~~strikethrough~~.

2.2 List of Comment Letters Received

The comment letters received on the Draft IS/MND are listed below in Table 2-1. Each comment letter has been assigned a corresponding alphabet letter designation.

**TABLE 2-1
LIST OF COMMENTERS**

Letter	Commenter	Received Date
1	Central Valley Regional Water Quality Control Board	May 28, 2013
2	Central Valley Flood Protection Board	May 30, 2013
3	California Department of Transportation	June 6, 2013
4	State Water Resources Control Board	June 12, 2013



EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

CITY OF DAVIS

MAY 28 2013

PUBLIC WORKS

24 May 2013

Michael Lindquist
City of Davis
1717 Fifth Street
Davis, CA 95616

CERTIFIED MAIL
7011 2970 0003 8939 9114

COMMENTS TO REQUEST FOR REVIEW FOR THE DRAFT MITIGATED NEGATIVE DECLARATION, CITY OF DAVIS WASTEWATER TREATMENT PLANT SECONDARY AND TERTIARY IMPROVEMENTS PROJECT, SCH NO. 2013052032, YOLO COUNTY

Pursuant to the State Clearinghouse's 10 May 2013 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Draft Mitigated Negative Declaration* for the City of Davis Wastewater Treatment Plant Secondary and Tertiary Improvements Project, located in Yolo County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

1-1

City of Davis Wastewater Treatment Plant
Secondary and Tertiary Improvements Project
Yolo County

- 2 -

24 May 2013

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits¹

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

1-2

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/.

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 97-03-DWQ.

1-3

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml.

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

1-4

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

¹ Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

City of Davis Wastewater Treatment Plant
Secondary and Tertiary Improvements Project
Yolo County

- 3 -

24 May 2013

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACOE permit, or any other federal permit, is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

1-5

Waste Discharge Requirements

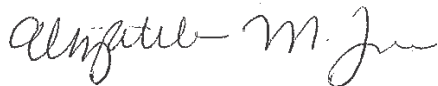
If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project will require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

1-6

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml.

If you have questions regarding these comments, please contact me at (916) 464-4684 or tcleak@waterboards.ca.gov.



for Trevor Cleak
Environmental Scientist

cc: State Clearinghouse Unit, Governor's Office of Planning and Research, Sacramento

Letter 1 – Central Valley Regional Water Quality Control Board

Comment 1-1 The comment provides information and requirements for obtaining a stormwater construction general permit.

Response 1-1 Comment noted. As described on Page 2-57 of the Draft IS/MND, construction contractors would be required to implement a Stormwater Pollution Prevention Plan (SWPPP) in compliance with the Central Valley Regional Water Quality Control Board (CVRWQCB) Construction General Permit and State law. The SWPPP would include Best Management Practices (BMPs) that would be implemented throughout the construction period to prevent soil, debris, and oil/grease from entering stormwater runoff. Implementation of the requirements of the Construction General Permit and the Wastewater Treatment Plant effluent discharge permit would prevent violation of waste discharge requirements and water quality standards, and impacts would be less than significant.

Comment 1-2 The comment provides information and requirements related to the Phase I and II Municipal Separate Storm Sewer System (MS4) Permits.

Response 1-2 Comment Noted. California initiated the second phase of municipal stormwater protection with the issuance of the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (Small MS4). In March 2003, the City submitted a Notice of Intent and a draft Storm Water Management Plan (SWMP) to the Central Valley Regional Water Quality Control Board (RWQCB). The SWMP was updated and resubmitted in September 2006. The SWMP is the City's plan and commitment to managing properties, facilities, and operations within its jurisdiction to protect water resources and comply with the General Permit. The Board deemed the City's SWMP to be adequate and ruled the City to have Small MS4 NPDES Permit (MS4 Permit) coverage in February of 2007.

Comment 1-3 The comment provides information and requirements related to the Industrial Storm Water General Permit.

Response 1-3 Comment Noted. A new Industrial Storm Water General Permit will not be required for the implementation of the proposed project.

Comment 1-4 The comment provides information and requirements related to the Clean Water Act Section 404 Permit.

Response 1-4 Comment noted. As described on Page 2-36 of the Draft IS/MND, if it is determined that the project will directly impact waters of the U.S., the project applicant would obtain all required permit approvals from the US Army

Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW) and any other agencies with permitting responsibilities for construction activities within jurisdictional features.

Comment 1-5 The comment provides information and requirements related to the Clean Water Act Section 401 - Water Quality Certification.

Response 1-5 Comment noted. See response to Comment 1-4

Comment 1-6 The comment provides information and requirements related to a Waste Discharge Requirement Permit.

Response 1-6 Comment noted. See response to Comment 1-4

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY

EDMUND G. BROWN JR., GOVERNOR

CENTRAL VALLEY FLOOD PROTECTION BOARD

3310 El Camino Ave., Rm. 151
SACRAMENTO, CA 95821
(916) 574-0609 FAX: (916) 574-0682
PERMITS: (916) 574-2380 FAX: (916) 574-0682



May 29, 2013

CITY OF DAVIS

Mr. Michael Lindquist
City of Davis
1717 Fifth Street
Davis, California 95616

MAY 30 2013

PUBLIC WORKS

Subject: Wastewater Treatment Plant Secondary and Tertiary Improvements Project
SCH Number: 2013052032
Document Type: Mitigated Negative Declaration

Dear Mr. Lindquist:

Staff of the Central Valley Flood Protection Board (Board) has reviewed the subject document and provides the following comments:

The proposed project is located adjacent to or within the Willow Slough and Bypass which is under the jurisdiction of the Central Valley Flood Protection Board. The Board is required to enforce standards for the construction, maintenance, and protection of adopted flood control plans that will protect public lands from floods. The jurisdiction of the Board includes the Central Valley, including all tributaries and distributaries of the Sacramento River, the San Joaquin River, and designated floodways (Title 23 California Code of Regulations (CCR), Section 2).

A Board permit is required prior to starting the work within the Board's jurisdiction for the following:

- The placement, construction, reconstruction, removal, or abandonment of any landscaping, culvert, bridge, conduit, fence, projection, fill, embankment, building, structure, obstruction, encroachment, excavation, the planting, or removal of vegetation, and any repair or maintenance that involves cutting into the levee (CCR Section 6);
- Existing structures that predate permitting or where it is necessary to establish the conditions normally imposed by permitting. The circumstances include those where responsibility for the encroachment has not been clearly established or ownership and use have been revised (CCR Section 6);
- Vegetation plantings will require the submission of detailed design drawings; identification of vegetation type; plant and tree names (i.e. common name and scientific name); total number of each type of plant and tree; planting spacing and irrigation method that will be utilized within the project area; a complete vegetative management plan for maintenance to prevent the interference with flood control, levee maintenance, inspection, and flood fight procedures (CCR Section 131).

Vegetation requirements in accordance with Title 23, Section 131 (c) states "Vegetation must not interfere with the integrity of the adopted plan of flood control, or interfere with maintenance, inspection, and flood fight procedures."

2-1

2-2

Mr. Michael Lindquist
May 29, 2013
Page 2 of 2

The accumulation and establishment of woody vegetation that is not managed has a negative impact on channel capacity and increases the potential for levee over-topping. When a channel develops vegetation that then becomes habitat for wildlife, maintenance to initial baseline conditions becomes more difficult as the removal of vegetative growth is subject to federal and State agency requirements for on-site mitigation within the floodway. The project should include mitigation measures to avoid decreasing floodway channel capacity.

2-2
cont.

Hydraulic Impacts - Hydraulic impacts due to encroachments could impede flood flows, reroute flood flows, and/or increase sediment accumulation. The project should include mitigation measures for channel and levee improvements and maintenance to prevent and/or reduce hydraulic impacts. Off-site mitigation outside of the State Plan of Flood Control should be used when mitigating for vegetation removed within the project location.

2-3

The permit application and Title 23 CCR can be found on the Central Valley Flood Protection Board's website at <http://www.cvfpb.ca.gov/>. Contact your local, federal and State agencies, as other permits may apply.

The Board's jurisdiction, including all tributaries and distributaries of the Sacramento River and the San Joaquin River, and designated floodways can be viewed on the Central Valley Flood Protection Board's website at <http://gis.bam.water.ca.gov/bam/>.

If you have any questions, please contact me by phone at (916) 574-0651, or via e-mail at jherota@water.ca.gov.

Sincerely,



James Herota
Staff Environmental Scientist
Projects and Environmental Branch

cc: Governor's Office of Planning and Research
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, California 95814

Letter 2 – Central Valley Flood Protection Board

Comment 2-1 **The comment provides information and requirements related to jurisdiction of the Central Valley Flood Protection Board and Board permit requirements.**

Response 2-1 Comment noted. The proposed project will obtain all applicable permits, approvals, and comply with all standards recommended by the Central Valley Flood Protection Board.

Comment 2-2 **The comment notes that the project should include mitigation measures to avoid decreasing floodway channel capacity associated with the accumulation and establishment of woody vegetation.**

Response 2-2 Comment noted. While the proposed project would not directly contribute to the accumulation and establishment of woody vegetation, the proposed project will obtain all applicable permits, approvals, and comply with all standards recommended by the Central Valley Flood Protection Board, including any provisions related to maintenance of accumulated vegetation. No additional mitigation is required.

Comment 2-3 **The comment notes that project should include mitigation measures for channel and levee improvements and maintenance to prevent and/or reduce hydraulic impacts.**

Response 2-3 Comment noted. Modifications to project area levees would not impede flood flows, reroute flood flows, and/or increase sediment accumulation. All levee improvements will be to the land side of the levee to avoid construction within the Willow Slough Bypass. Additionally, the proposed project will obtain all applicable permits, approvals, and comply with all standards recommended by the Central Valley Flood Protection Board. No additional mitigation is required.

DEPARTMENT OF TRANSPORTATION

703 B STREET
MARYSVILLE, CA 95901
PHONE (916) 274-0635
FAX (916) 274-0602
TTY 711



*Flex your power!
Be energy efficient!*

June 6, 2013

032013-YOL-0013
03-YOL-80 / 4.09
SCH# 2013052032

Mr. Michael Lindquist
City of Davis
1717 Fifth Street
Davis CA 95616

City of Davis Wastewater Treatment Plant Secondary Tertiary Improvement Project – MND

Dear Mr. Lindquist:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the project referenced above. The project includes construction and installation of a new Wastewater Treatment Plant (WWTP) treatment infrastructure, a flood wall and/or levee improvements, and a treated wastewater discharge pipeline. Construction will last for 36 months and would occur between 7:00am to 5:00pm with a maximum of 20 round trips per day during the construction period. The project is located at approximately 2.6 miles away from the interchange of County Road 32B and Interstate 80. The following comments are based on the MND.

Traffic Management Plan

Caltrans suggest modifying construction plans to account for AM and PM peak hour traffic conditions and identify appropriate mitigation. Specifically, we suggest avoiding haul trips during peak hours. If it is determined that traffic restrictions and detours are needed on or affecting State highways, a TMP or construction Traffic Impact Study may be required of the developer for approval by Caltrans prior to construction. TMPs must be prepared in accordance with Caltrans' *Manual on Uniform Traffic Control Devices*. Further information is available for download at the following web address: <http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/camutcd2012/Part6.pdf>

3-1

"Caltrans improves mobility across California"

Mr. Michael Lindquist / City of Davis
June 6, 2013
Page 2

If you have any questions regarding these comments or require additional information, please contact Mindy Bacharach, Intergovernmental Review Coordinator for Yolo at (916) 263-1625 or by email at: melinda.bacharach@dot.ca.gov.

Sincerely,

A handwritten signature in black ink that reads "Eric Fredericks". The signature is written in a cursive, flowing style.

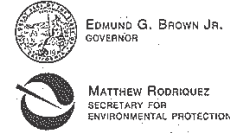
ERIC FREDERICKS, Chief
Office of Transportation Planning – South

c: Scott Morgan, State Clearinghouse

Letter 3 – California Department of Transportation

Comment 3-1 The comment provides suggestions for modifying construction plans to account for AM and PM peak hour traffic conditions and identify appropriate mitigation. The comment also notes that a Traffic Management Plan or Traffic Impact Study may be required.

Response 3-1 Comment noted. As described under Mitigation Measure TRAFFIC-1 on page 2-72 of the Draft IS/MND, the City will require the contractor(s) to prepare a Traffic Control Plan in accordance with Caltrans and other professional engineering standards prior to construction. No additional mitigation is required.



State Water Resources Control Board

JUN 07 2013

Michael Lindquist
City of Davis
1717 Fifth Street
Davis, CA 95616

CITY OF DAVIS

JUN 12 2013

PUBLIC WORKS

Dear Mr. Lindquist:

INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION (IS/MND) FOR CITY OF DAVIS (CITY); CITY OF DAVIS WASTEWATER TREATMENT PLANT SECONDARY AND TERTIARY IMPROVEMENTS PROJECT (PROJECT); YOLO COUNTY; STATE CLEARINGHOUSE NO. 2013052032

We understand that the City is pursuing Clean Water State Revolving Fund (CWSRF) financing for this Project. As a funding agency and a state agency with jurisdiction by law to preserve, enhance, and restore the quality of California's water resources, the State Water Resources Control Board (State Water Board) is providing the following information on the IS/MND to be prepared for the Project.

Please provide us with the following documents applicable to the proposed Project following the City's California Environmental Quality Act (CEQA) process: (1) one copy of the draft and final IS/MND, (2) the resolution adopting the IS/MND and making CEQA findings, (3) all comments received during the review period and the City's response to those comments, (4) the adopted Mitigation Monitoring and Reporting Program (MMRP), and (5) the Notice of Determination filed with the Yolo County Clerk and the Governor's Office of Planning and Research, State Clearinghouse. In addition, we would appreciate notices of any hearings or meetings held regarding environmental review of any projects to be funded by the State Water Board.

The State Water Board, Division of Financial Assistance, is responsible for administering the CWSRF Program. The primary purpose for the CWSRF Program is to implement the Clean Water Act and various state laws by providing financial assistance for wastewater treatment facilities necessary to prevent water pollution, recycle water, correct nonpoint source and storm drainage pollution problems, provide for estuary enhancement, and thereby protect and promote health, safety and welfare of the inhabitants of the state. The CWSRF Program provides low-interest funding equal to one-half of the most recent State General Obligation Bond Rates with a 20-year term. Applications are accepted and processed continuously. Please refer to the State Water Board's CWSRF website at:

www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/index.shtml.

The CWSRF Program is partially funded by the United States Environmental Protection Agency and requires additional "CEQA-Plus" environmental documentation and review.

FELICIA MARCUS, CHAIR | THOMAS HOWARD, EXECUTIVE OFFICER

1001 I Street, Sacramento, CA 95814 | Mailing Address: P.O. Box 100, Sacramento, Ca 95812-0100 | www.waterboards.ca.gov



Four enclosures are included that further explain the CWSRF Program environmental review process and the additional federal requirements. The State Water Board is required to consult directly with agencies responsible for implementing federal environmental laws and regulations. Any environmental issues raised by federal agencies or their representatives will need to be resolved prior to State Water Board approval of a CWSRF financing commitment for the proposed Project. For further information on the CWSRF Program, please contact Mr. Ahmad Kashkoli, at (916) 341-5855.

It is important to note that prior to a CWSRF financing commitment, projects are subject to provisions of the Federal Endangered Species Act (ESA), and must obtain Section 7 clearance from the United States Department of the Interior, Fish and Wildlife Service (USFWS), and/or the United States Department of Commerce National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS) for any potential effects to special-status species.

Please be advised that the State Water Board will consult with USFWS, and/or NMFS regarding all federal special-status species that the Project has the potential to impact if the Project is to be funded under the CWSRF Program. The City will need to identify whether the Project will involve any direct effects from construction activities, or indirect effects such as growth inducement, that may affect federally listed threatened, endangered, or candidate species that are known, or have a potential to occur on-site, in the surrounding areas, or in the service area, and to identify applicable conservation measures to reduce such effects.

In addition, CWSRF projects must comply with federal laws pertaining to cultural resources, specifically Section 106 of the National Historic Preservation Act (Section 106). The State Water Board has responsibility for ensuring compliance with Section 106, and must consult directly with the California State Historic Preservation Officer (SHPO). SHPO consultation is initiated when sufficient information is provided by the CWSRF applicant. If the City decides to pursue CWSRF financing, please retain a consultant that meets the Secretary of the Interior's Professional Qualifications Standards (www.cr.nps.gov/local-law/arch_stnds_9.htm) to prepare a Section 106 compliance report.

Note that the City will need to identify the Area of Potential Effects (APE), including construction and staging areas, and the depth of any excavation. The APE is three-dimensional and includes all areas that may be affected by the Project. The APE includes the surface area and extends below ground to the depth of any Project excavations. The records search request should be made for an area larger than the APE. The appropriate area varies for different projects but should be drawn large enough to provide information on what types of sites may exist in the vicinity.

Other federal requirements pertinent to the Project under the CWSRF Program include the following:

- A. Compliance with the Federal Clean Air Act: (a) Provide air quality studies that may have been done for the Project; and (b) if the Project is in a nonattainment area or attainment area subject to a maintenance plan; (i) provide a summary of the estimated emissions (in tons per year) that are expected from both the construction and operation of the Project for each federal criteria pollutant in a nonattainment or maintenance area, and indicate if the nonattainment designation is moderate, serious, or severe (if applicable); (ii) if emissions are above the federal de minimis levels, but the Project is sized to meet only the needs of current population projections that are used in the approved State Implementation Plan for air quality, quantitatively indicate how the proposed capacity increase was calculated using population projections.
- B. Compliance with the Coastal Zone Management Act: Identify whether the Project is within a coastal zone and the status of any coordination with the California Coastal Commission.
- C. Protection of Wetlands: Identify any portion of the proposed Project area that should be evaluated for wetlands or United States waters delineation by the United States Army Corps of Engineers (USACE), or requires a permit from the USACE, and identify the status of coordination with the USACE.
- D. Compliance with the Farmland Protection Policy Act: Identify whether the Project will result in the conversion of farmland. State the status of farmland (Prime, Unique, or Local and Statewide Importance) in the Project area and determine if this area is under a Williamson Act Contract.
- E. Compliance with the Migratory Bird Treaty Act: List any birds protected under this act that may be impacted by the Project and identify conservation measures to minimize impacts.
- F. Compliance with the Flood Plain Management Act: Identify whether or not the Project is in a Flood Management Zone and include a copy of the Federal Emergency Management Agency flood zone maps for the area.
- G. Compliance with the Wild and Scenic Rivers Act: Identify whether or not any Wild and Scenic Rivers would be potentially impacted by the Project and include conservation measures to minimize such impacts.

4-1
cont.

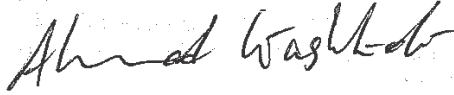
Following are specific comments on the City's draft IS/MND:

- 1. Mitigation Measure BIO-1 on page 2-30 states that "Prior to construction, vegetated portions of the project site including wetland habitats *would* be surveyed by a qualified biologist for special status plants..." To be consistent with CEQA terminology, please change "would" to "shall" or "will" under mitigation measures throughout your document, since "shall" and "will" identify a mandatory element which the City is required to follow.

4-2

Thank you for the opportunity to review the City's draft IS/MND. If you have any questions or concerns, please feel free to contact me at (916) 341-5855, or by email at AKashkoli@waterboards.ca.gov, or contact Jessica Collado at (916) 341-7388, or by email at JCollado@waterboards.ca.gov.

Sincerely,



Ahmad Kashkoli
Senior Environmental Scientist

cc: State Clearinghouse
(Re: SCH# 2013052032)
P.O. Box 3044
Sacramento, CA 95812-3044

If project emissions are below the "de minimis" levels and less than 10% of the emissions inventory for the non-attainment or maintenance area, then:

- Further general conformity analysis is not required.

If project emissions are above the "de minimis" levels:

- A conformity determination for the area must be made.

A conformity determination can be made if facilities are sized to meet the needs of current population projections used in an approved State Implementation Plan (SIP) for air quality. Using population projections, applicants must quantify their description of how the proposed capacity increase was calculated.

NATIONAL HISTORIC PRESERVATION ACT

Section 106 of the NHPA requires federal agencies to take into account effects on historic properties caused by federal actions (such as funding SRF projects) and to provide the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings through consultation with the State Historic Preservation Officer (SHPO) and with interested Indian Tribes and individuals.

*USEPA has delegated to the State Water Board the responsibility for carrying out the requirements of Section 106 of the NHPA.

Historic properties include:

- Archaeological sites.
- Historic era buildings.
- Traditional cultural properties.

Starting point for the 106 process:
Applicant's record search and cultural resource documents prepared for CEQA.

State Water Board's Cultural Resource Officer (CRO) requires:

- Copies of all original maps and studies for consultation with SHPO.

If your project has the potential to affect historic properties the consultation process can be quite lengthy. **Please contact the CRO early in your planning process to discuss what additional information may be needed for your specific project.**

Environmental Review Process Guidelines for State Revolving Fund Loan Applicants document provides additional information on the review process and can be found on the State Water Board's web site located at:

<http://www.waterboards.ca.gov/funding/srf.html>



Water Boards
CALIFORNIA STATE WATER RESOURCES CONTROL BOARD
DIVISION OF FINANCIAL ASSISTANCE

SRF & CEQA-PLUS

Environmental Review for State Revolving Fund (SRF) Loan Applicants



- WHAT - WHY - HOW -

State Water Resources Control Board
Division of Financial Assistance
November 2005

WHAT IS CEQA-PLUS?

The SRF Loan Program is partially funded by the U.S. Environmental Protection Agency (USEPA) and subject to federal environmental regulations, including the Endangered Species Act (ESA), the National Historic Preservation Act (NHPA), and the General Conformity Rule for the Clean Air Act (CAA), among others. Federal agencies have their own policies on how they comply with federal environmental laws. Instead of the National Environmental Policy Act (NEPA), USEPA has chosen to use the California Environmental Quality Act (CEQA) as the compliance base for California's SRF Loan Program, in addition to compliance with ESA, NHPA and CAA. Collectively, the State Water Board calls these requirements **CEQA-Plus**. Additional federal regulations also may apply.

Lead Agency: The Applicant

Duties:

- Prepare, circulate and consider the environmental documents prior to approving the project.
- Provide the State Water Board with eight (8) copies of the applicant's CEQA documents.

Responsible Agency: State Water Board, Division of Financial Assistance

Duties:

- Acting on behalf of USEPA, review and consider the CEQA documents before approving the project's funding.

- Make findings as to the adequacy of the documents and require additional studies or documentation, as needed.

- Distribute the applicant's CEQA documents to selected federal agencies for review and comment before making a determination on adequacy. (This distribution is in addition to the standard State Clearinghouse distribution under CEQA.)

***The applicant must address all comments by federal agencies before funding is approved.**

ENDANGERED SPECIES ACT

Non-federal Representative (for all wastewater and water reclamation projects in California that involve an SRF loan):
State Water Board

State Water Board - Environmental Services Staff (ES) reviews SRF projects to determine potential effects on federally listed species.

Applicant Duties:

- At the earliest possible date, provide ES with:
 - Species lists.
 - Biological assessments.
 - Other documents related to project effects on sensitive species.

- Notify ES early during the planning process of any issues regarding sensitive species.

ES Duties:

- Confer informally with the U.S. Fish and Wildlife Service (USFWS) and/or National Marine Fisheries Service (NMFS), as necessary.
- Evaluate and inform USFWS/NMFS of project impacts to federally listed species.
- Ask USEPA to request formal consultation if ES, in conjunction with USFWS/NMFS, determines that a project will adversely affect a federally listed species.

***USEPA will act as the lead agency in the formal consultation process. In response to a formal request from USEPA, USFWS/NMFS may have up to 90 days to prepare a biological opinion. The process can last 135 days or longer.**

CLEAN AIR ACT

CAA general conformity analysis applies only to projects in areas:

- Not meeting National Ambient Air Quality Standards (NAAQS).
- Subject to a maintenance plan.

An analysis is necessary for each criteria pollutant below for which an area is considered as being in nonattainment or maintenance:

- ozone
- sulfur dioxide
- carbon monoxide
- lead
- nitrogen dioxide
- inhalable particulate matter

Cultural Resources

*Compliance with
Federal Section 106 of the
National Historic Preservation Act*

Information Needed from the
Applicant:

- Current records search with maps showing all sites and surveys drawn in relation to the project area.
- Native American consultation.
- Instructions as to how to get started are found in the CEQA Guidelines, since these two items are basic to any cultural resources review.

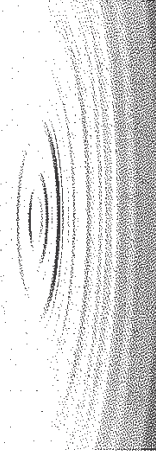
Migratory Bird Treaty Act

Information Needed From the
Applicant:

- Identification of whether or not the project is within jurisdiction of the Migratory Bird Treaty Act.

Quick Reference Guide to the California Environmental Quality Act (CEQA)-Plus Requirements for State Revolving Fund Loans

Guide to Federal Requirements



State Water Resources Control Board
Division of Financial Assistance
January 2008

Wild and Scenic Rivers Act

Information Needed from the
Applicant:

- Identification of whether or not the project will impact any Wild and Scenic Rivers.

Other Requirements

Information Needed from the
Applicant:

- Eight (8) copies of the final CEQA document.
- A date-stamped copy of the Notice of Determination or the Notice of Exemption filed with the Governor's Office of Planning and Research and a receipt of the filing fees paid to the California Department of Fish and Game for Negative Declarations (ND) or Environmental Impact Reports (EIR).
- A copy of the Resolution from the lead agency, approving or certifying the CEQA document and their project. *Note: The CEQA Guidelines uses "approve" or "adopt" for ND and "certify" for EIR.*

Endangered Species

Compliance with Section 7 of the Endangered Species Act

Information Needed from the Applicant:

- List of special status species (both animal and plant) likely or possibly to occur at project site. *Note: If none will possibly occur, provide supporting information.*
- Any biological assessments or special biological studies that may have been done for the project.
- Other documents that disclose information about the project's effect on sensitive species.



Protection of Wetlands

Information Needed from the Applicant:

- Identification of whether or not the project or construction activities will impact streams, flood control channels, or wetlands.

Air Quality

Compliance with the Federal Air Quality Act

Information Needed from the Applicant:

- Air quality studies that may have been done for the project.
- For those projects in non-attainment areas or attainment areas subject to maintenance plans:
 - Emission data for each criteria pollutant for which the area has been designated non-attainment or maintenance; and
 - Summary of the emissions that are expected from both the construction and operation of the project for each criteria pollutant in a non-attainment or maintenance area.
- If emissions are above the federal de minimis levels, but the project is sized to meet only the needs of current population projections that are used in the approved State Implementation Plan for air quality:
 - Quantitatively indicate how the proposed capacity increase was calculated using population projections.

Floodplain Management

Information Needed from the Applicant:

- Identification of whether or not the project is in a Flood Management Zone and a copy of the Federal Emergency Management Agency flood zone maps for the project area.

Farmland Protection Policy Act

Information Needed from the Applicant:

- Identification of whether or not the proposed project will impact any important farmland or land under Williamson Act control.

Coastal Zone Management Act

Information Needed from the Applicant:

- Identification of whether or not the proposed project is in the Coastal Zone.

Letter 4 – State Water Resources Control Board

Comment 4-1 **The comment provides general information and requirements related to the receiving funding from the Clean Water State Revolving Fund (CWSRF) program.**

Response 4-1 Comment noted. No additional response required.

Comment 4-2 **The comment provides suggestions for the wording of mitigation measures to be consistent with the provisions of CEQA. Specifically, the commenter requests consistency related to the use of “shall” or “will” in favor of “would” for mitigation measures throughout the document.**

Response 4-2 Comment noted. To facilitate identification, modifications to the document are included as **bold underlined** text and text removed from the document is indicated by ~~striketrough~~.

Appendix A

Initial Study/Mitigated Negative Declaration



CITY OF DAVIS WWTP SECONDARY AND TERTIARY IMPROVEMENTS PROJECT

Initial Study/Mitigated Negative Declaration

Prepared for
City of Davis

May 2013



CITY OF DAVIS WWTP SECONDARY AND TERTIARY IMPROVEMENTS PROJECT

Initial Study/Mitigated Negative Declaration

Prepared for
City of Davis

May 2013



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Los Angeles

Oakland

Orlando

Palm Springs

Petaluma

Portland

San Diego

San Francisco

Santa Cruz

Seattle

Tampa

Woodland Hills

209071

OUR COMMITMENT TO SUSTAINABILITY | ESA helps a variety of public and private sector clients plan and prepare for climate change and emerging regulations that limit GHG emissions. ESA is a registered assessor with the California Climate Action Registry, a Climate Leader, and founding reporter for the Climate Registry. ESA is also a corporate member of the U.S. Green Building Council and the Business Council on Climate Change (BC3). Internally, ESA has adopted a Sustainability Vision and Policy Statement and a plan to reduce waste and energy within our operations. This document was produced using recycled paper.

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SECTION 1

Project Description

Introduction

In accordance with the provisions of the California Environmental Quality Act (CEQA) the City of Davis (City) has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) for the proposed City of Davis Wastewater Treatment Plant (WWTP) Secondary and Tertiary Improvements Project (Proposed Project). The City will be the Lead Agency pursuant to CEQA and has determined that a Mitigated Negative Declaration is the appropriate environmental document for the Proposed Project.

CEQA Requirements

This document has been prepared to satisfy the requirements of CEQA (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before they approve or implement those projects.

The Initial Study is a public document used by the City, acting as lead agency, to determine whether a proposed project may have a significant effect on the environment. If the City finds substantial evidence that any aspect of the project, either alone or in combination with other projects, may have a significant effect on the environment, the City is required to prepare an environmental impact report (EIR), a supplement to a previously prepared EIR, or a subsequent EIR to analyze the project at hand. If the City finds no substantial evidence that the project or any of its aspects may cause a significant impact on the environment, a negative declaration may be prepared. If, over the course of the analysis, the project is found to have a significant impact on the environment that, with specific mitigation measures, can be reduced to a less-than-significant level, a Mitigated Negative Declaration may be prepared. A summary of the draft proposed mitigation measures for the project can be found in **Appendix F**.

Project construction is proposed to be funded with a loan from the SWRCB State Revolving Fund (SRF) Loan program. The SRF program is partially funded by the U.S. Environmental Protection Agency (EPA), and is subject to compliance with federal environmental regulations. These “CEQA-Plus” or “NEPA-Like” requirements expand the typical content requirements of CEQA to include federal environmental regulations, including the preparation of studies to satisfy the requirements of the Endangered Species Act (ESA), the National Historic Preservation

Act (NHPA), and the General Conformity Rule for the Clean Air Act (CAA), among others. Because the SWRCB has discretionary funding approval over the Proposed Project, they are considered a CEQA responsible agency as defined under CEQA Guidelines Section 15381. As a responsible agency, the SWRCB will act on behalf of EPA by reviewing and considering the CEQA documents before approving the project's funding, to make findings as to the adequacy of the documents, require additional studies or documentation, as needed, and to distribute the applicant's CEQA documents to selected federal agencies for consultation before making a determination on the adequacy of the environmental document.

Responsible Agencies, Permits, and Approvals

Table 1-1 summarizes the potential permits and/or approvals that may be required prior to construction of the Proposed Project.

**TABLE 1-1
REGULATORY REQUIREMENTS, PERMITS, AND AUTHORIZATIONS FOR PROJECT FACILITIES**

Agency	Type of Approval
Federal Agencies	
U.S. Army Corps of Engineers	Section 404 Permit
State Agencies	
Regional Water Quality Control Board	NPDES General Permit for Stormwater Discharge Associated with Construction Activities;
State Water Resources Control Board	Funding Approval, Cooperating Agency
Regional Water Quality Control Board	Section 401 Permit
Central Valley Flood Protection Board	Levee Encroachment Permit
Local Agencies	
City of Davis	CEQA Lead Agency, Project Approval
Yolo-Solano Air Quality Management District	Authority to Construct

Project Location and Background

Project Background

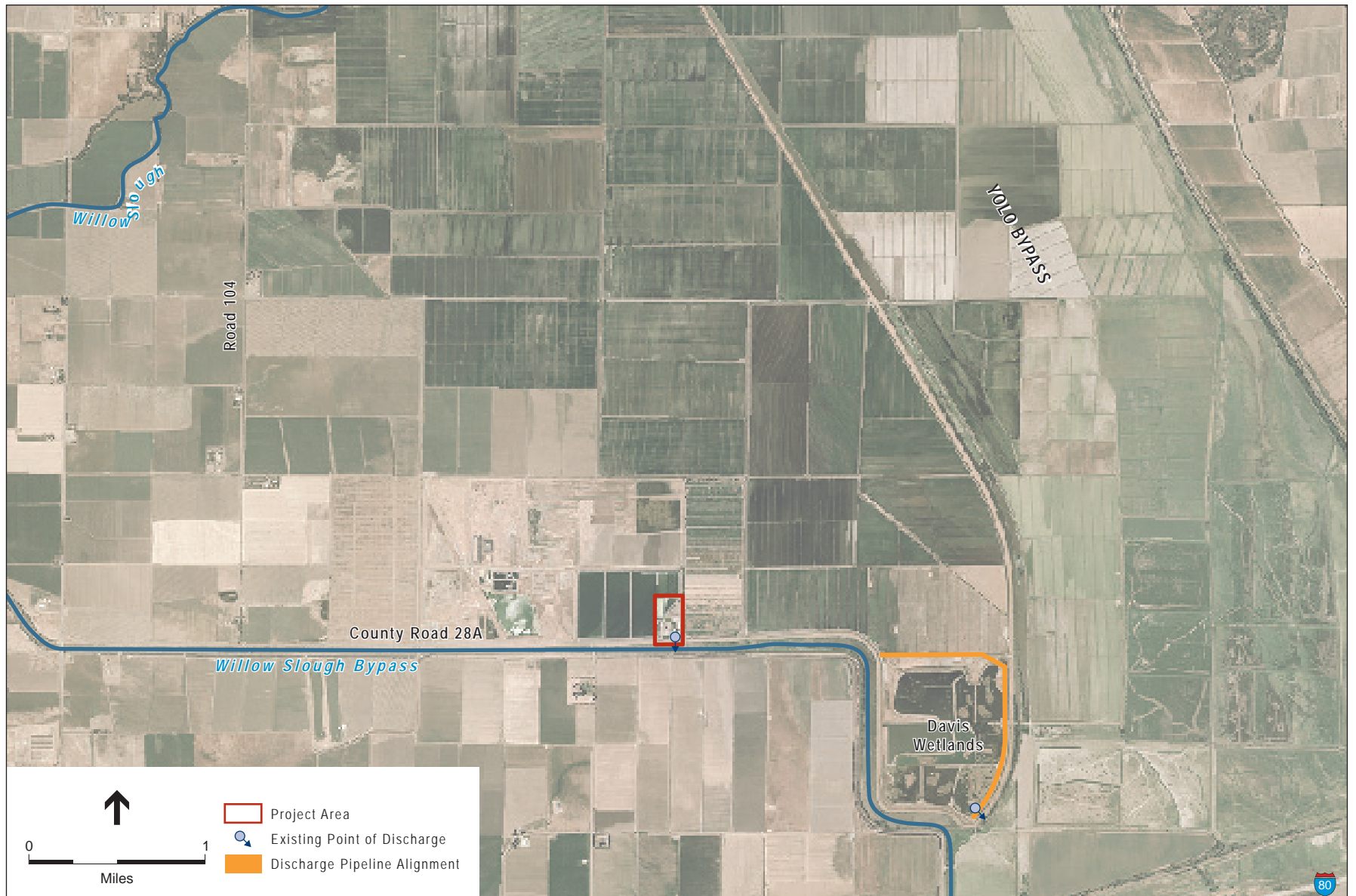
The City owns and operates the Davis WWTP, which is located east of the City limits at 45400 County Road 28H in Yolo County (**Figure 1-1** and **Figure 1-2**). The existing wastewater treatment system at the WWTP consists of an influent pump station, mechanical bar screen, an aerated grit tank, three primary sedimentation basins, two aeration ponds (typically used in winter), three facultative oxidation ponds, a lemna pond, an overland flow system, a chlorine disinfection system, and restoration wetlands. Solids collected from the primary sedimentation basins are treated in an anaerobic digester and then are dewatered in three on-site sludge lagoons. Treated solids are land applied on the City's overland flow slopes and the upland areas of the restoration wetlands.



SOURCE: NAIP, 2006; and ESA, 2013

City of Davis WWTP Improvement Project . 209071

Figure 1-1
Regional Location Map



SOURCE: NAIP, 2006; and ESA, 2013

City of Davis WWTP Improvement Project . 209071

Figure 1-2
Project Area

Treated effluent is discharged to the Willow Slough Bypass (Discharge Point 001) and/or through the Davis restoration wetlands to the Conaway Ranch Toe Drain (Discharge Point 002), both of which are considered Waters of the United States under the Clean Water Act and tributary to the Yolo Bypass.

The City received a renewed permit (Order No. R5-2007-0132-02, as amended, Central Valley Regional Water Board) for its discharge of treated effluent to the Willow Slough Bypass and Conaway Ranch Toe Drain. To maintain its surface water discharge, the Permit requires the City to meet new stringent effluent limitations within ten years of adoption of the Permit. To meet the new limit, the City has determined it necessary to cease its surface water discharge to Willow Slough Bypass, all or in part, and construct upgrades to its existing treatment process. The City has until October of 2017 to implement a project to meet the new permit requirements. The Proposed Project is being developed in response to these new discharge requirements.

On December 12, 2007, in an effort to demonstrate compliance with amendments to the Permit, the City prepared a CEQA Categorical Exemption (CE) for the WWTP Secondary Process Replacement Project which included the repair of existing structures, replacement of existing equipment, and reconstruction of the existing land-based secondary treatment process at the WWTP with newer technology. These improvements included rehabilitation of the exiting preliminary and primary treatment processes, replacing the existing natural treatment pond system with a nitrifying activated sludge (NAS) treatment process with secondary clarification, construction of aeration basins with associated blower equipment, and upgrades to operations and maintenance facilities (Secondary Improvements Project). Because the Secondary Process Replacement Project involved only the reconstruction of existing facilities and structures within the existing WWTP footprint with no expansion of use or capacity, the City determined that the project qualified for a Class 2 CEQA CE. A notice of exemption (NOE) was filed with the Yolo County Clerk on December 19, 2007 (**Appendix A**). However, the details of the Secondary Improvements Project will be carried forward for analysis in this IS/MND as an update to the 2007 NOE.

Project Objectives

The need for the Proposed Project is to meet the National Pollutant Discharge Elimination System (NPDES) permit requirements. Project objectives include:

- To meet regulatory requirements for the treatment and disposal of municipal wastewater;
- To provide flexibility in meeting current and future regulatory requirements through replacement or upgrade of the existing wastewater treatment facility as necessary;
- To enhance local and regional ecosystems by protecting the downstream aquatic habitat and environment; and
- To maintain and protect public health and safety

Project Description

The Proposed Project consists of the installation of new secondary treatment, tertiary treatment, and solids handling facilities. Specifically, the improvements include an activated sludge process including biological reactor vessels and secondary clarifiers for solids separation; new filtration facilities; additional disinfection facilities; and mechanical solids thickening, dewatering, and storage facilities. Use of the existing ponds will change from treatment to storage, and the overland flow system will be decommissioned as part of the WWTP treatment process. An effluent pipeline will be constructed to convey treated water around the restoration wetlands to the existing Discharge Point 002. In addition, the Proposed Project also includes the construction of flood protection around certain WWTP facilities to reduce impacts associated with potential flooding. The restoration wetlands will remain in place for stormwater treatment and ecological considerations.

All new proposed treatment facilities would be constructed within the footprint of the existing WWTP site. The proposed discharge pipeline extension would be constructed within the restoration wetlands area along or adjacent to roadways integral to the restoration wetlands facility.

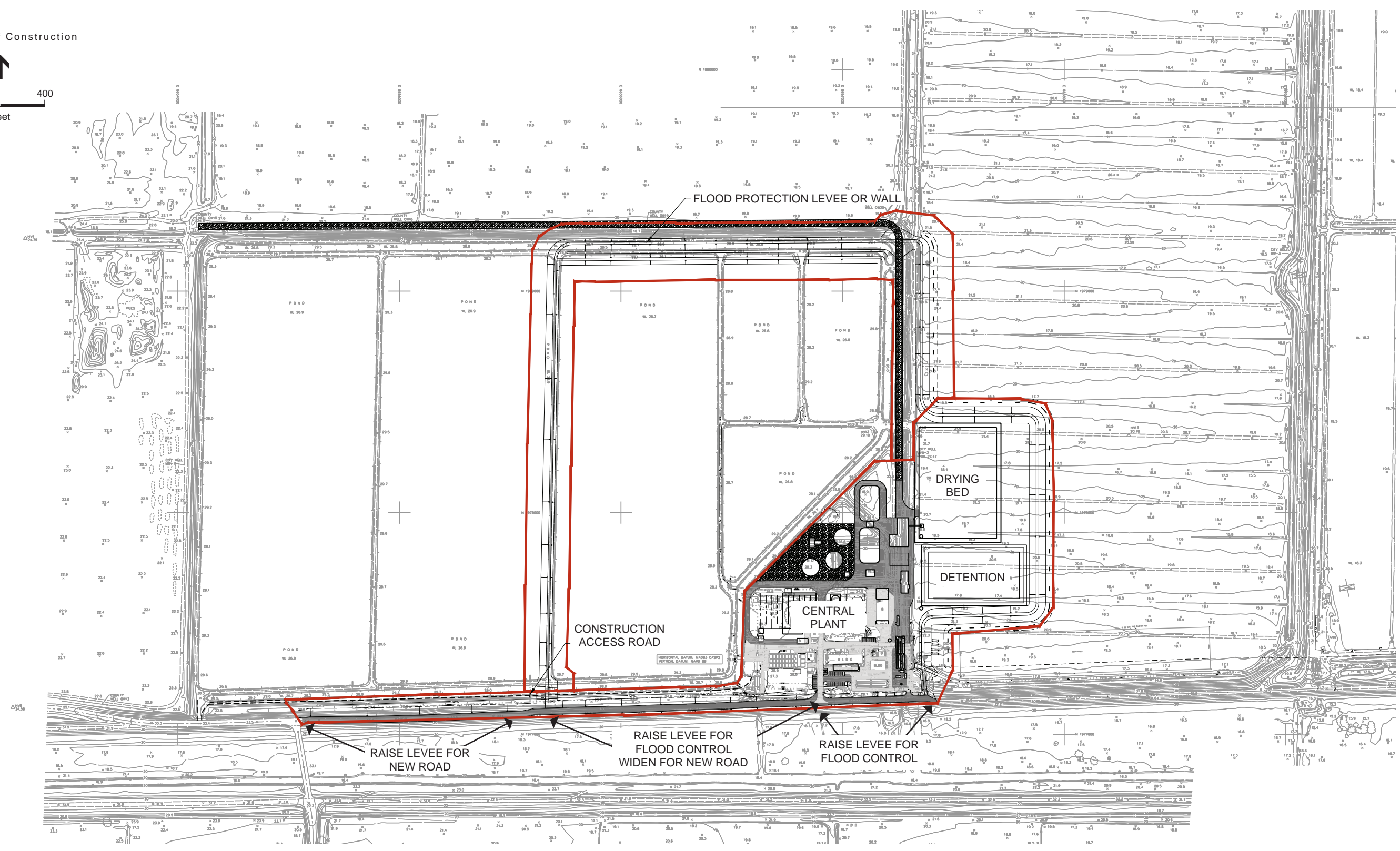
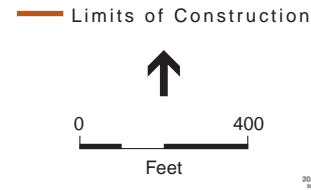
Installation of these new facilities will only serve to replace existing facilities and enhance the level of treatment to meet the new NPDES permit requirements. Elements of the Proposed Project will have an initial average dry weather flow rating (ADWF) of 6.0 million gallons per day (mgd), and therefore will not increase treatment capacity at the WWTP beyond its current capacity of 7.5 mgd ADWF. **Figure 1-3** through **Figure 1-5** shows the layout of the proposed improvements.

Secondary Improvements

Compliance with tighter biochemical oxygen demand (BOD), total suspended solids (TSS), and ammonia reduction standards will be accomplished by replacing the existing natural treatment pond and overland flow system with a nitrifying activated sludge (NAS) treatment process. The system will require construction of aeration basins, oxidation ditches, or similar biological reactors with an associated blower and electrical equipment building or buildings; secondary clarifiers; and return activated sludge (RAS) / waste activated sludge (WAS) pumping systems. The new facilities may also include primary effluent equalization basins, diversion structures, and pumping systems to facilitate use of existing ponds at various points in the treatment train for the purpose of limiting peak flows and associated treatment process capacities.

Tertiary Improvements

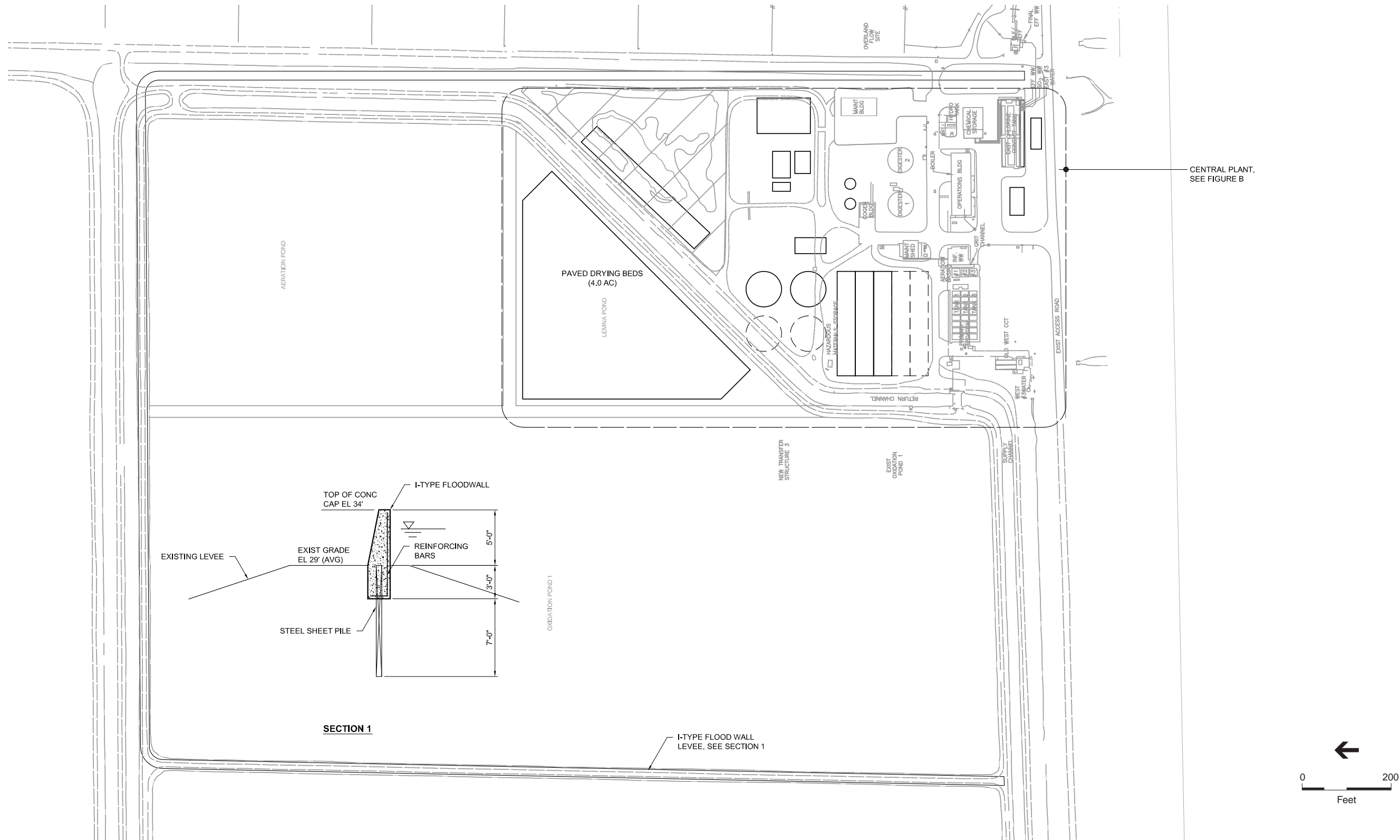
The tertiary facilities improvements are proposed to consist of new filtration and expanded disinfection facilities to meet the new NPDES permit requirements. Proposed new filters would meet California Department of Health Services Title 22 standards or equivalent as required in the NPDES permit. The filters will be constructed of either multimedia granular filters, or Title 22 approved pre-manufactured modular filters.



SOURCE: West Yost Associates, 2013; and ESA, 2013

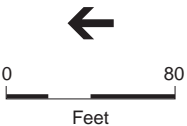
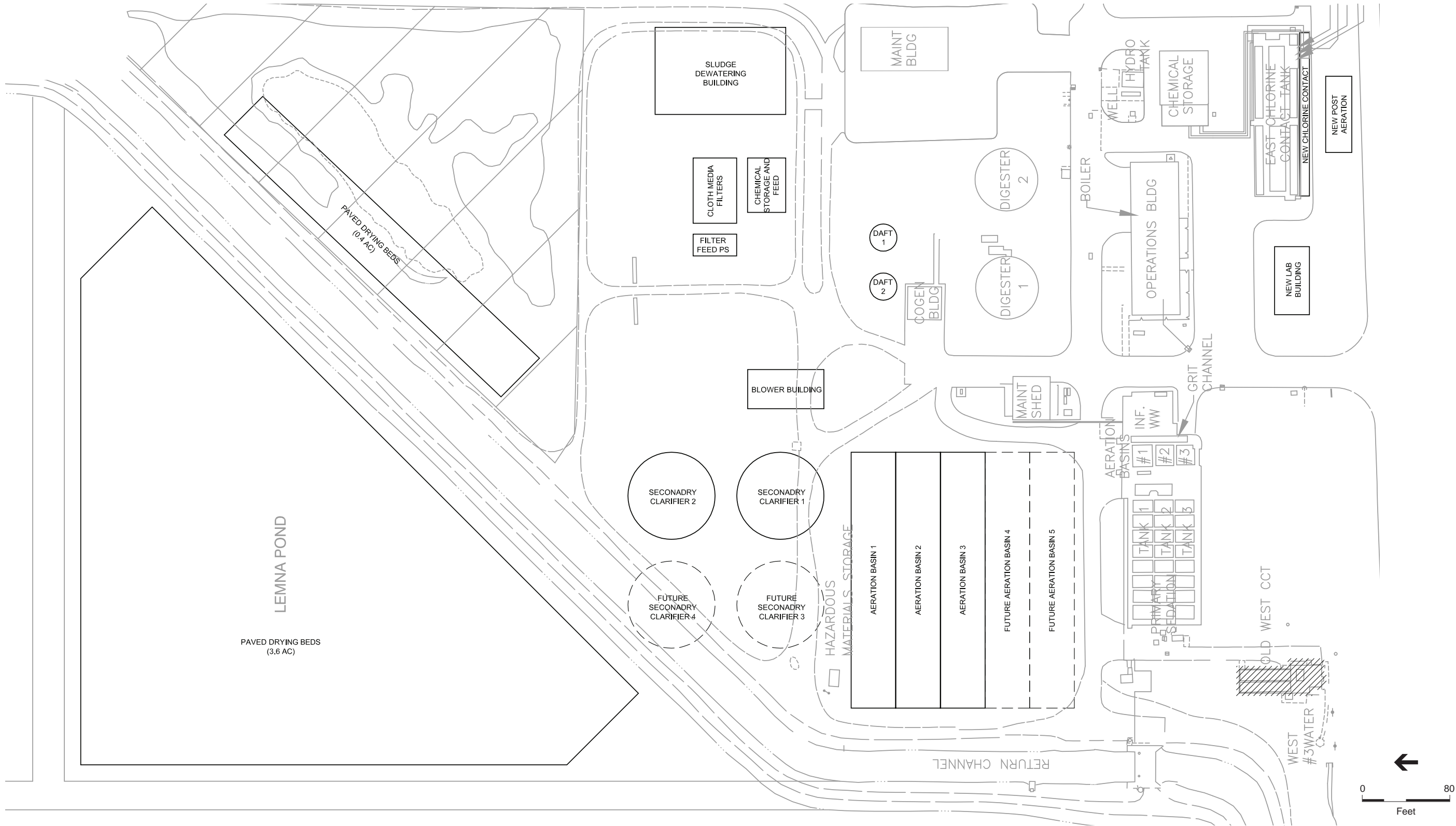
Davis WWTP Upgrade Project . 209071

Figure 1-3
Overall Site Plan



SOURCE: Brown and Caldwell, 2012; and ESA, 2012

Davis WWTP Upgrade Project . 209071
Figure 1-4
 Central Plant and Floodwall Site Plan



SOURCE: Brown and Caldwell, 2012; and ESA, 2012

Davis WWTP Upgrade Project . 209071
Figure 1-5
Central Treatment Area Site Plan

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The existing chlorine disinfection system and sulfur dioxide dechlorination system will either be upgraded to meet new disinfection standards, or be replaced with an ultraviolet or ozonedisinfection system. Existing wastewater effluent meets disinfection requirements; however, the physical system itself is not consistent with recently adopted permit requirements. The existing chlorine contact tank does not provide the required detention time, nor does it offer redundancy. Replacement of chlorine and sulfur dioxide systems with ultraviolet disinfection would remove a large quantity of hazardous materials from wastewater treatment plant sites, but would significantly increase energy use.

Upgrading the existing chlorine disinfection would require a second chlorine contact tank of approximately the same dimensions as the existing tank. Little to no modifications to the chemical storage building and injection facility would be required.

Replacement with UV or ozone disinfection would require a new facility to be constructed. The facility would include multiple flow channels, a new motor control center, and overhead awnings or other protective structure. It would also require the demolition of the existing disinfection contact tank. The new facilities would occupy an area approximately 80 feet by 100 feet. Electrical energy demands for the UV disinfection would increase overall plant energy usage by about 15%.

Solids Handling

Improvements to the solids handling systems are also proposed. The secondary solids stream requires treatment to reduce odors and pathogens, similar to existing primary solids treatment. New facilities will include WAS storage and thickening equipment, digested biosolids storage lagoons, dewatering facilities, dewatering supernatant storage basins and a solar biosolids drying and storage area. Some of the solids treatment equipment will be housed in an enclosed or partially enclosed structure. Secondary solids will be digested in the existing digesters with primary solids. Heating and mixing equipment will be added to the second existing digester. The solids treatment will produce additional digester gas that will either be flared, used in a boiler to supply hot water for building and digester heating, and/or used in a new, larger cogeneration system to generate electricity and heat.

Cogeneration System

A new, larger cogeneration system will make use of the additional gas produced in the anaerobic digesters that further treat solids produced by the existing primary and proposed secondary systems. The digester gas produced is approximately 55 to 65 percent methane and is considered a renewable energy source. The gas is used to produce energy that offsets facility power demand consistent with energy conservation and renewable energy values established during the planning process. Waste heat from the energy generation process can also be captured to meet part of the heating demands of the plant. The cogeneration system would include a generation technology that meets California Air Resources Board and Yolo-Solano Air Quality management District emissions requirements, such as a lean burn internal combustion engine-generator set, microturbine, or fuel cell rated at approximately 200 kW. Gas storage would be considered if necessary to balance equipment sizing with gas production rates and gas usage goals. Associated gas conditioning equipment would be needed, and the facilities would be housed in a new or expanded building also housing a new dual-fuel boiler for digester and other general plant heating needs.

Other Ancillary Facilities

The proposed improvements will also include modification and replacement of aging support facilities such as electrical generator/switchgear/controllers/wiring, potable and non-potable water systems, and stormwater drainage systems. The Proposed Project will also include modifications to the maintenance, laboratory, and administrative support facilities to accommodate respective maintenance, process analysis, and control systems associated with the proposed improvements.

Reaeration Facilities

At certain times, it may be necessary to increase the effluent oxygen content to avoid adversely affecting the oxygen levels in the receiving waters. The Proposed Project includes an effluent reaeration facility which would consist of cascade aeration, or some form of mechanical aeration following dechlorination. The reaeration structure will also incorporate a final effluent diversion gate, and a pumping system on standby for use when water levels in the Yolo Bypass preclude gravity flow of effluent without pumping.

Discharge Pipeline

As described above, the City has determined it may be necessary to cease its surface water discharge to Willow Slough Bypass (Permitted Discharge Point 001), all or in part. Currently, there is an existing pipeline from the WWTP that can transport wastewater to the restoration wetlands via a 24 inch pipeline. The wetlands discharge to the Conaway Ranch Toe Drain via Permitted Discharge Point 002. Currently, the City varies its discharge locations seasonally as needed based on the permit conditions. As part of this Proposed Project, the City will either continue to discharge at point 001, or discharge via the new pipeline directly to Discharge Point 002. As part of the upgrades, the Proposed Project will extend an existing 24 inch pipeline from its existing termination point at the northwest corner of the wetlands to the pump station at the south east corner of the wetlands (Permitted Discharge Point 002) for discharge to the Conaway Ranch Toe Drain. The extension would be approximately 1.4 miles long. The pipeline trench would be approximately 5 feet by 5 feet with a 20-foot temporary construction disturbance area along the proposed alignment for equipment and materials staging.

Flood Protection Improvements

On December 19, 2008, the Federal Emergency Management Agency (FEMA) issued new preliminary flood zone maps. The revised maps, which took effect on June 18, 2010, significantly expanded the area of high-risk flood zones within Yolo County, including the area around the project site. Because of the expansion of the high-risk flood zones, all proposed new structures or substantial improvement of existing structures in a flood hazard area must be constructed at least one foot above the flood hazard elevation or flood-proofed in accordance with the new regulations to protect them from flooding.

Although FEMA's efforts to update their floodplain mapping in the Central Valley could change the floodplain limits and water surface elevations at the WWTP, it seems unlikely that the WWTP will be removed from the FEMA floodplain given the California Department of Water Resources' (DWR)

categorization of the levees in the area as high concern. If the WWTP remains in the floodplain, it may be necessary for the City of Davis to implement flood protection measures at the WWTP to comply with the requirements of the NPDES permit. Three potential options for providing flood protection were considered by the City of Davis and discussed in more detail in **Appendix B**. Flood protection options included:

- Construction of a Floodwall or Levee around the WWTP
- Improve Existing Levees
- Rely on CVFPP and Lower Cache Creek Improvements

Because improving existing levees and relying on the CVFPP and Lower Cache Creek Improvements would require significant time and financial investment, construction of a flood wall or levee around the boundary of the improved WWTP was determined to be the preferred option. Flood protection at the WWTP would be achieved by constructing a floodwall or levee around the key facilities at the site. The specific facilities to be protected at the WWTP site will need to be negotiated with the RWQCB; however, this analysis conservatively assumes that all treatment and storage facilities at the WWTP site will be protected.

The flood protection wall or levee will be approximately six to nine feet above grades found in the main plant area and approximately 15 feet above the overland flow area. Where used, a flood wall would be constructed of steel reinforced concrete. An additional three to six feet of wall would be constructed below grade and anchored into the ground with seven to 12 feet of steel sheet piles.

It will also be necessary to raise portions of the Willow Slough Bypass north levee up to adjacent to the main treatment plant to protect it from 100-year flood levels in the bypass. As part of these levee improvements, approximately 2,900 feet of the existing private access road to the WWTP will also be improved to allow for two 12-foot wide paved driving lanes and 3-foot wide shoulders. The levee and road improvements will be to the land side (WWTP side) of the levee to avoid construction within Willow Slough Bypass. **Figure 1-6** shows the extent of the proposed Willow Slough Bypass levee modifications.

The Willow Slough bypass levee is located directly south the WWTP. The existing top of levee elevation ranges from 31.7 to 33.2 feet (NAVD). The levee will be raised to elevation 35.15 feet to provide flood protection as described above. The levee will be raised starting at the waterside top of slope and extending the toe of slope on the land side (WWTP side) of the levee. The new flood walls or levees constructed around the perimeter of the WWTP will be keyed into the raised Willow Slough Bypass Levee.

All modifications to the existing levee shall be reviewed and approved by the Central Valley Flood Protection Board who will issue an encroachment permit for the work. The Central Valley Flood Protection Board will coordinate with the US Army Corps of Engineers for their review of the modifications. All work on the existing levees shall conform to the requirements of the encroachment permit.

At minimum the following design criteria will apply:

1. The design flood elevation is estimated to be 33.15 feet (NAVD88).

2. The flood protection structure for the WWTP shall provide two feet of freeboard, requiring a top elevation of 35.15 feet (NAVD88).
3. Not inhibit plant operations or increase the level of effort required to perform any plant maintenance or operation activity.

Staging Areas and Site Access

Construction workers, equipment, and haul trucks would access the construction area primarily from Interstate 80, County Road 105, and County Road 28H. It is assumed that the existing WWTP site will be used to a limited extent for materials staging and storage during grading and excavation activities. If additional staging areas are required the contractor(s) selected for construction will make the appropriate arrangements with adjacent landowners to secure areas for equipment and material staging.

Project Construction Assumptions and Schedule

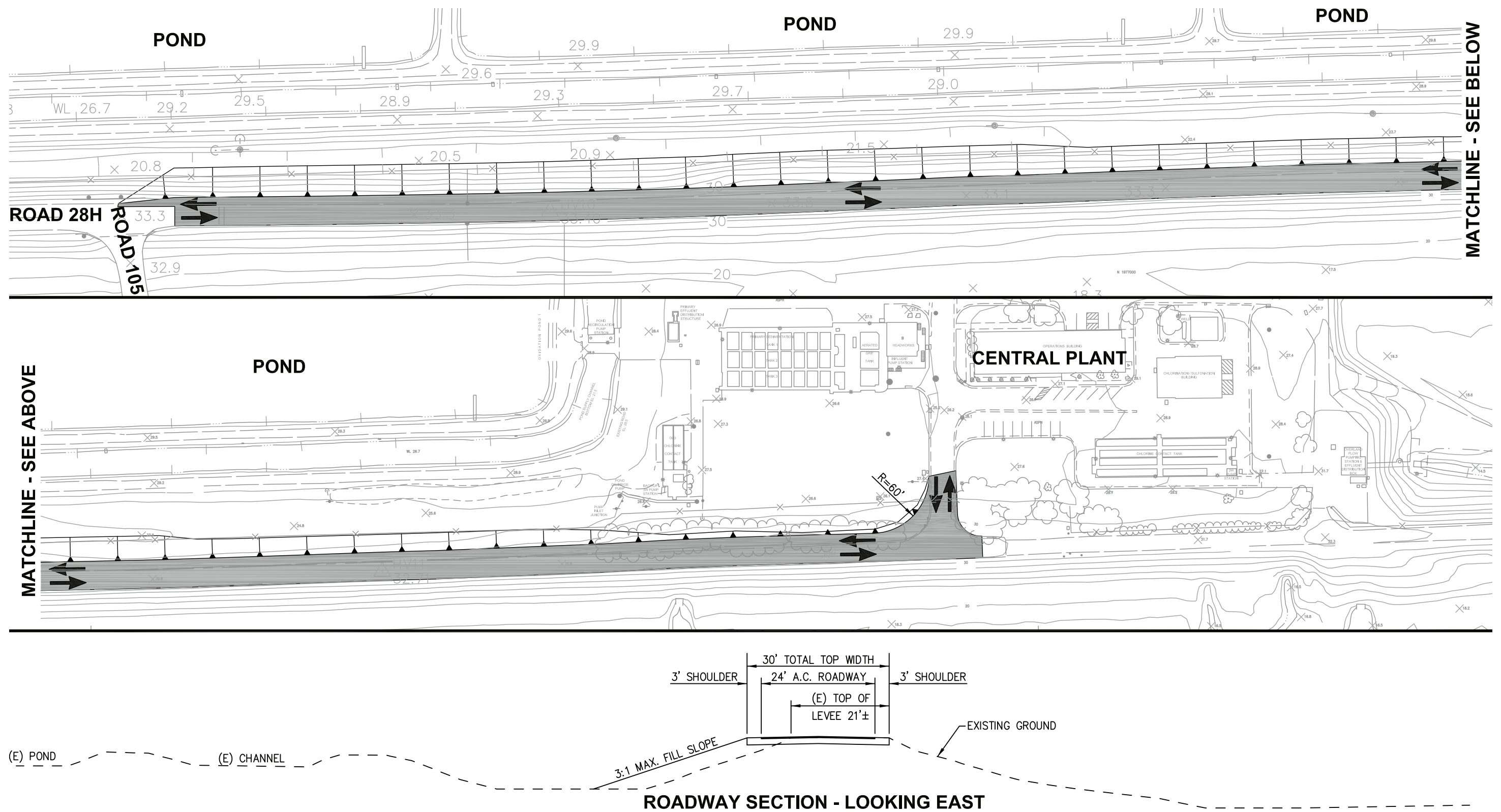
The number and types of vehicles required for construction of the WWTP improvements would likely include three excavators, two hydraulic cranes, two front-end loaders, four backhoes, three forklifts, one self-loading scraper, six haul trucks, two water trucks, 12 job pickup trucks, and two temporary generators for construction power.

The number of construction personnel, number of employee vehicle round trips per day, and construction-related truck round trips per day that would be required to construct the proposed WWTP improvements would depend on the type of construction activities and the construction schedule. Material for construction of proposed improvements would be transported to and from the sites via truck and trailer using the public road system. Other than construction of the WWTP entrance / access road, design features of the Proposed Project would not be located in existing roadways. Local and regional roadways operate at a high level of service with substantial available assimilation capacity; as a result, vehicle trips associated with construction and operation of the Proposed Project would not be expected to change the level of service on local or regional roadways. At the peak of construction there could be 30 concrete delivery trucks, six material delivery trucks, 15 subcontractor work pickups, and 15 general contractor work pickups. Emergency access and parking capacity would be designed to meet the needs of the Proposed Project.

Construction activities would include site preparation (e.g., excavation, grading, and clearing), placement of drilled aggregate piers, trenching and backfilling for piping and duct banks, laying concrete foundations, forming and pouring concrete vessels, paving, frame and building erection, equipment installation, finishing, cleanup, and other miscellaneous activities.

The total length of the effluent pipeline extension route is approximately 1.7 miles. The pipeline construction and maintenance corridor would be on city-owned property. Construction would require the use of two excavators, two front-end loaders, four backhoes, and as many as eight 10-wheeled dump trucks.

The anticipated construction timing is approximately 36 months.



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SECTION 2

Initial Study Environmental Checklist

1. **Project Title:** City of Davis WWTP Improvement Project
2. **Lead Agency Name and Address:** City of Davis Public Works Department
1717 Fifth Street
Davis, California 95616
3. **Contact Person and Phone Number:** Michael Lindquist, Project Manager, City of Davis, 530-757-5686
4. **Project Location:** The existing City Water Pollution Control Plant located at 45400 County Road 28H, Yolo County and agricultural areas north
5. **Project Sponsor's Name and Address:** City of Davis Public Works Department
1717 Fifth Street
Davis, California 95616
6. **General Plan Designation:** Agriculture, Open Space
7. **Zoning:** Agriculture; Agriculture Preserve
8. **Description of Project:** The Proposed Project would be located east of the City of Davis in Eastern Yolo County, California. The project area, illustrated in **Figure 1-1** and **Figure 1-2**, is comprised primarily of agricultural land. The Proposed Project would include construction and installation of facilities such as new WWTP treatment infrastructure, a flood wall and/or levee improvements, and a treated wastewater discharge pipeline.
9. **Surrounding Land Uses and Setting:** Land use in the project area is predominantly agricultural in nature. Developed uses are limited to the existing City of Davis WWTP, the Yolo County Central Landfill, and scattered rural residential farm houses.
10. **Other public agencies whose approval is required:** Permits may be required from: U.S. Army Corps of Engineers, United States Fish and Wildlife Service, California Department of Fish and Wildlife, California Regional Water Quality Control Board (RWQCB), Central Valley Region; Yolo-Solano Air Quality Management District (YSAQMD); Yolo County; California Department of Public Health; State Water Resources Control Board; United States Environmental Protection Agency.

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this Proposed Project, involving at least one impact that is a potentially significant impact.

- | | | |
|--|---|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology, Soils and Seismicity |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Hydrology and Water Quality |
| <input type="checkbox"/> Land Use and Land Use Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input checked="" type="checkbox"/> Transportation and Traffic | <input type="checkbox"/> Utilities and Service Systems | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION:

On the basis of this 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 Proposed 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

May 10, 2013

Date

Paul Garcia

Printed Name

City of Davis

For

Aesthetics

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
1. AESTHETICS— Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway corridor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The project area is visible primarily from users of the Yolo County Central Landfill (YCCL) and from visitors and workers traveling to and from the City wastewater treatment plant (WWTP) and the Davis Restoration Wetlands located east of the WWTP. The project area is rural in character surrounded by existing agricultural land uses and urban uses associated with the existing YCCL and WWTP. There is one rural residential house located approximately 2,300 feet to the southwest of the project area. There are no significant topographic features in the area that restrict views; with only local features including levees, and roadway/railroad embankments limiting local view from specific locations. There are no designated state scenic highways or vistas within the vicinity of the project area.

Discussion

- a) **No Impact.** The project site and surrounding land is generally flat with no public viewing areas of scenic vistas in the immediate vicinity. Further, the Proposed Project would not result in buildings that would block views from neighboring properties or roadways. The nearest County designated scenic resource is County Road 117 and Old River Road, located approximately six miles northeast of the project site. Construction and operation of the Proposed Project would not obstruct or otherwise affect a scenic vista and **no impact** would occur.
- b) **No Impact.** The Proposed Project is not located within a local, state or federally designated scenic vista. Yolo County has no designated federal or State Scenic Highways but has designated several local roadways as scenic highways. The nearest county designated scenic roadway is located approximately six miles northeast of the project area at County Road 117 and Old River Road (Yolo County, 2009). The project area is not visible from this location and as a result, the Proposed Project would have **no impact** on scenic resources.

- c) **Less than Significant Impact.** The surrounding project area is almost entirely agricultural in use with crops that include alfalfa, rice, and tomato fields as well as other varieties of field crops. The project site consists of the existing WWTP buildings and facilities. The existing landscape is predominantly flat, with views of agricultural fields and scattered accessory farm buildings. Urban features within the project area include the YCCL west of the project site and the City of Davis WWTP.

Temporary changes to the visual character of the project area would result when construction equipment, materials, and crews are present on the project site. Construction activity would also temporarily alter local visual resources until construction is complete and the disturbed areas are restored or stabilized. Operation of the Proposed Project would include features similar to existing WWTP facilities. Though the proposed aboveground filtration and treatment systems would be located in a flat area, these features would not be predominately visible from surrounding areas. Construction and operation of the flood wall and/or levee improvements around the WWTP would be visible to surrounding areas, but would be similar to and lower in height than other structures on the WWTP and at the county landfill. Once constructed, the proposed discharge pipeline would be located underground and have no visual impact. Therefore, construction and operation of the Proposed Project would have a **less than significant impact** on the existing visual environment.

- d) **Less than Significant Impact.** Lighting for the proposed treatment plant upgrades would be similar to existing lighting and would be contained within the existing WWTP site. Because the existing facility includes lighting and new lighting would be similar to existing on site facility lighting, the Proposed Project would not result in a new source of light or glare and this impact would be **less than significant**.
-

Agricultural and Forest Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
2. AGRICULTURAL AND FOREST 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 Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
Would the project:				
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 non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The project area consists primarily of rural and agricultural lands in unincorporated Yolo County. The primarily existing urban features within the vicinity of the project area include the YCCL and the City WWTP. The project site is entirely comprised of facilities used for the treatment of wastewater and does not contain any agricultural lands, including prime farmland or lands under a Williamson Act Contract. However lands adjacent to the project site may contain prime farmland or be under Williamson Act Contracts (Yolo County, 2009).

Discussion

- a-e) **No Impact.** Construction and operation of Proposed Project would occur within the existing footprint of the WWTP facility and within primarily disturbed areas within the Davis Restoration Wetlands. Therefore, the Proposed Project would not convert farmland or forest land, and would not conflict with Yolo County land use regulations and policies or a Williamson Act contract. Therefore, the Proposed Project would have **no impact** on agricultural and forest resources.

Air Quality

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
3. 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:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The project site is located in unincorporated Yolo County in the southern portion of the Sacramento Valley Air Basin (SVAB), which is bounded by the North Coast Range on the west and the Northern Sierra Nevada Mountains on the east. Hot dry summers and mild rainy winters characterize the Mediterranean climate of the Sacramento Valley. During the year the temperature may range from 20 to 115 degrees Fahrenheit with summer highs usually in the 90s and winter lows occasionally below freezing. Average annual rainfall is about 20 inches, and the rainy season generally occurs from November through March. The prevailing wind is from the south, primarily because of ocean breezes through the Carquinez Strait, although during winter the marine breezes diminish and winds from the north occur more frequently.

The mountains surrounding the SVAB create a barrier to airflow, which leads to the entrapment of air pollutants when meteorological conditions are unfavorable for transport and dilution. Poor air movement occurs most frequently in fall and winter when high-pressure cells are present over the project area and meteorological conditions are stable. The lack of surface winds during these periods, combined with the reduced vertical flow caused by less surface heating, reduces the influx of air and results in the concentration of pollutants. Surface concentrations of air pollutant emissions are highest when these conditions occur in combination with agricultural burning activities or temperature inversions, which hamper dispersion by creating a ceiling over the area and trapping air pollutants near the ground.

May through October is ozone season in the SVAB and is characterized by poor air movement in the mornings and the arrival of the Delta sea breeze from the southwest in the afternoons. In addition, longer daylight hours provide a plentiful amount of sunlight to fuel photochemical reactions between reactive organic gas (ROG) and nitrogen oxides (NO_x), which in turn result in ozone formation.

Typically, the Delta breeze transports air pollutants northward out of the SVAB; however, during approximately half of the time, from July through September, a phenomenon known as the Schultz Eddy prevents this from occurring. The Schultz Eddy phenomenon causes the wind pattern to shift southward, blowing air pollutants back into the SVAB. This phenomenon exacerbates the concentration of air pollutant emissions in the air basin and contributes to violations of the ambient air quality standards.

Existing Air Quality in the Project Vicinity

The YSAQMD monitoring stations in the vicinity of the project area are located in Davis on the UC Davis campus and in the City of Woodland on Gibson Road. Data collected at these stations are considered to be generally representative of air quality of the project area, especially for regional pollutants such as ozone and PM₁₀. **Table 2-1** summarizes the concentrations of ozone, PM₁₀, and PM_{2.5} from 2009 through 2011 and compares the ambient air pollutant concentrations with applicable federal and state air quality standards.

TABLE 2-1
AIR QUALITY DATA SUMMARY (2009–2011) FOR THE PROJECT AREA

Pollutant	Monitoring Data by Year			
	Standard ^a	2009	2010	2011
Ozone: Woodland-Gibson Road				
Maximum concentration 1-hour (ppm) ^b	0.09	0.093	0.087	0.088
Number of days state standard exceeded 1-hour		0	0	0
Maximum concentration 8-hour (ppm) ^b		0.082	0.069	0.073
Number of days state standard exceeded 8-Hour	0.070	11	0	2
Number of days national standard exceeded 8-Hour	0.075	3	0	0
Ozone: Davis-UC Davis				
Maximum concentration 1-hour (ppm) ^b	0.09	0.092	0.094	0.087
Number of days state standard exceeded 1-hour		0	0	0
Maximum concentration 8-hour (ppm) ^b		0.082	0.073	0.082
Number of days state standard exceeded 8-Hour	0.070	7	3	2
Number of days national standard exceeded 8-Hour	0.075	1	0	1
Particulate Matter (PM₁₀): Woodland-Gibson Road				
Maximum concentration state measurement (µg/m ³) ^b		64.0	87.4	53.2
Est. days over state standard ^c	50	12.2	6.5	6.1
Maximum concentration national measurement (µg/m ³) ^b		64.6	87.4	56.6
Est. days over national standard ^c	150	0	0	0
Particulate Matter (PM_{2.5}): Woodland-Gibson Road				
Maximum concentration national measurement (µg/m ³) ^b		27.6	26.7	39.4
Est. days national standard exceeded ^c	35	0	0	NA
State annual average (µg/m ³) ^b	12	NA	NA	NA

a Generally, state standards and national standards are not to be exceeded more than once per year.

b ppm = parts per million; µg/m³ = micrograms per cubic meter.

c PM10 and PM2.5 is not measured every day of the year. Number of estimated days over the standard is based on 365 days per year.

NA = Not Available.

SOURCE: California Air Resources Board (ARB), 2013. *Summaries of Air Quality Data, 2009-2011*;
www.arb.ca.gov/adam/select8/sc8start.php

Federal General Conformity Rule

Federal projects are subject to either the Transportation Conformity Rule (40 CFR, Part 51, Subpart T), which applies to federal highway and transit projects, or the General Conformity Rule (40 CFR, Part 51, Subpart W), which applies to all other federal projects or projects receiving federal funds. Because the Proposed Project may receive SRF funding, a general conformity determination is required. The General Conformity Rule implements Section 176(c) of the federal Clean Air Act, which requires that a federal agency ensure conformity with an approved SIP for those air emissions that would be generated by an agency action. Conformity determinations for Federal actions are required for each pollutant where the total of direct and indirect emissions in a nonattainment or maintenance area caused by a Federal action would equal or exceed any of the rates identified in **Table 2-2**. Because the Proposed Project is located in an area that is serious non-attainment for ozone the conformity determination requirements do apply to the Proposed Project.

**TABLE 2-2
GENERAL CONFORMITY THRESHOLDS**

Criteria Pollutant	Tons/Year
Ozone (VOC's or NOX):	
<i>Serious NAA's</i>	50
<i>Severe NAA's</i>	25
<i>Extreme NAA's</i>	10
VOC	50
NOX	100
Carbon monoxide	100
SO2 or NO2	100
PM-10:	
<i>Moderate NAA's</i>	100
<i>Serious NAA's</i>	70
Lead:	25
SOURCE: 40 CFR Ch. I (7-1-05 Edition) § 93.15	

Yolo-Solano Air Quality Management District (YSAQMD)

Table 2-3 shows the project-level thresholds of significance as established by the YSAQMD for PM₁₀, CO, and the precursors to ozone (ROG), and NO_x. The thresholds apply to both construction and operational impacts.

**TABLE 2-3
SUMMARY OF YSAQMD SIGNIFICANCE THRESHOLDS**

Criteria Pollutants	YSAQMD Thresholds of Significance
ROG	10 tons/year
NO _x	10 tons/year
PM10	80 lbs/day
CO	Violation of a state ambient air quality standard for CO
SOURCE: YSAQMD, 2007	

Sensitive Receptors

Some receptors are considered more sensitive than others to air pollutants. Reasons for greater sensitivity include pre-existing health problems, proximity to emissions source, or duration of exposure to air pollutants. Schools, hospitals and convalescent homes are considered to be relatively sensitive to poor air quality because children, elderly people and the infirm are more susceptible to respiratory infections and other air quality-related health problems than the general public. Residential areas are also sensitive to poor air quality because people usually stay home for extended periods of time. The nearest sensitive receptor to the project site is a single-family rural residence located approximately 2,300 feet southwest of the project area.

Discussion

- a) **Less than Significant Impact.** The project site is located in the YSAQMD, in Yolo County. The project site is in an area currently designated serious non-attainment for the state 1-hour ozone standard, non-attainment for the state 8-hour standard and non-attainment for state PM₁₀ standard. To meet planning requirements related to this standard, the air districts of the Sacramento Region, including the YSAQMD, have adopted a Rate of Progress Plan (Plan) (SMAQMD, 2006). A significant impact would occur if a project conflicted with the plan by not mirroring the population-growth and vehicle-miles-traveled assumptions of the plan. The Proposed Project would not increase capacity for wastewater treatment, and would therefore not have the potential to foster population growth nor stimulate an increase in long-term traffic/vehicle-miles-traveled. As a result, the Proposed Project would not conflict with or obstruct with implementation of the Plan, and this impact would be **less than significant**.
- b) **Less than Significant Impact with Mitigation.** Post-construction, operational activities would generally be the same as pre-construction. The number of workers and the frequency of maintenance required would not increase above existing levels and therefore, would not result in an increase in traffic in the project area. As a result, potential operational emissions would be not increase as a result of the Proposed Project.

Construction and activities (i.e. grading, excavation, etc.) associated with the Proposed Project would generate emissions of criteria pollutants, including suspended and inhalable particulate matter and equipment exhaust emissions. Short-term unmitigated construction-generated emissions of ROG, NOX, and PM10 were modeled using the CalEEMod emissions model version 2011.1.1. Input parameters were based on default model settings (e.g., number and type of equipment, amount of material transport). The modeled maximum daily unmitigated construction emissions are provided in **Appendix C** and summarized in **Table 2-4** below.

TABLE 2-4
UNMITIGATED EMISSIONS FROM CONSTRUCTION ^{a, b}

Project Phase	ROG	NOx	CO	PM10	PM2.5
Daily Construction Emissions (lbs/day)					
Year 2014	13.1	108.8	57.6	6.8	5.2
Year 2015	7.5	56.1	34.1	3.0	2.6
Year 2016	7.0	50.6	33.4	13.9	4.2
YSAQMD Thresholds of Significance (lbs/day)	NA	NA	NA	80	NA
Significant (Yes or No)?	No	No	No	No	No
Annual Construction Emissions (tons/year)					
Year 2014	1.1	9.0	5.0	0.5	0.4
Year 2015	1.0	7.3	4.4	0.4	0.3
Year 2016	1.0	7.4	4.7	0.6	0.4
YSAQMD Thresholds of Significance (tons/year)	10	10	NA	NA	NA
Significant (Yes or No)?	No	No	No	No	No
General Conformity <i>de minimus</i> Threshold (tons/year)	25	25	NA	NA	100
Significant (Yes or No)?	No	No	No	No	No

a. Project construction emissions estimates for off-road equipment, trucks, workers, and fugitive dust were made using the SCAQMD CalEEMod (version 2011.1.1) for the tertiary improvements and floodwall construction activities, assuming that these activities would overlap for the full 36 month duration. For pipeline construction and levee/roadway improvements, the SMAQMD Roadway Construction Model (RCM) version 7.1.2 was used. Pipeline construction modeling incorporated the following assumptions: 1.5 mile pipeline construction in the year 2014 for a period of two months, trench width and depth of 5 feet, plus a disturbed area buffer of 5 feet assumed on each side of the pipeline, and excavated soil would be backfilled or spread on-site. For levee/roadway improvements, the following assumptions were incorporated in the model: construction would begin in 2016 for a period of two months after completion of other facility construction activities, 2,900 linear feet by 35 feet would be the total area disturbed, and no soil import would be needed. The RCM phases were adjusted to include Grubbing/Land Clearing (i.e., preparation of the area), Grading/Excavation (i.e., levee/roadway development), and Paving, each with default equipment mix. The emissions listed above are for the worse-case day and annual scenarios. Please see Appendix C for more information.

b. Values in **bold** are in excess of the applicable YSAQMD significance threshold. NA = Not Available.

With the incorporation of the standard YSAQMD mitigation requirements, included in **Mitigation Measure AIR-1** below, criteria pollutant emissions associated with construction activities will be further reduced to **less than significant**.

Mitigation Measure AIR-1: During construction activities, the City shall require the construction contractor(s) to implement a dust abatement program that includes, but is not limited to, the following YSAQMD-recommended measures:

All new construction projects shall incorporate the standard dust suppression requirements recommended by the YSAQMD, including:

- Nontoxic soil stabilizers according to manufacturer's specifications shall be applied to all inactive construction areas (previously graded areas inactive for ten days or more).
- Ground cover shall be reestablished in disturbed areas quickly.
- Active construction sites shall be watered at least twice daily to avoid visible dust plumes.
- Paving, applying water three times daily, or applying (non-toxic) soil stabilizers shall occur on all unpaved access roads, parking areas and staging areas at construction sites.

- Enclosing, covering, watering daily, or applying non-toxic soil binders to exposed stockpiles (dirt, sand, etc.) shall occur.
- A speed limit of 15 MPH for equipment and vehicles operated on unpaved areas shall be enforced.
- All vehicles hauling dirt, sand, soil, or other loose materials shall be covered or shall be maintained at least two feet of freeboard.
- Streets shall be swept at the end of the day if visible soil material is carried onto adjacent public paved roads.

All new construction projects shall incorporate the standard NO_x reduction requirements recommended by the YSAQMD, including:

- Construction equipment exhaust emissions shall not exceed District Rule 2-11 Visible Emission limitations.
- Construction equipment shall minimize idling time to 10 minutes or less.
- The prime contractor shall submit to the City a comprehensive inventory (i.e., make, model, year, emission rating) of all the heavy-duty off-road equipment (50 horsepower or greater) that will be used an aggregate of 40 or more hours for the construction project.
- City personnel, with assistance from the California Air Resources Board (CARB), will conduct initial Visible Emission Evaluations (VEE) of all heavy-duty equipment on the inventory list.
- An enforcement plan shall be established to weekly evaluate project-related on-and off-road heavy-duty vehicle engine emission opacities, using standards as defined in California Code of Regulations, Title 13, Sections 2180 - 2194.
- An Environmental Coordinator, CARB-certified to perform Visible Emissions Evaluations (VEE)
- VEE shall routinely evaluate project related off-road and heavy duty on-road equipment emissions for compliance with this requirement.
- Operators of vehicles and equipment found to exceed opacity limits will be notified and the equipment must be repaired within 72 hours.

Construction contracts shall stipulate that at least 20% of the heavy-duty off-road equipment included in the inventory be powered by CARB certified off-road engines, as follows:

- 175 hp - 750 hp 1996 and newer engines
- 100 hp - 174 hp 1997 and newer engines
- 50 hp- 99 hp 1998 and newer engines

In lieu of or in addition to this requirement, the City may use other measures to reduce particulate matter and nitrogen oxide emissions from project construction through the use of emulsified diesel fuel and or particulate matter traps. These alternative measures, if proposed, shall be developed in consultation with YSAQMD staff.

- c) **Less than Significant Impact with Mitigation.** As stated above, the Proposed Project is located within the YSAQMD, which has been designated as serious non-attainment for the state ozone standard and non-attainment for state PM₁₀ standard. Air emissions would be generated during construction of the Proposed Project, which could increase criteria air pollutants, including PM₁₀ and O₃. However, there would be no long-term increase in emissions and construction-related emissions would be temporary and less-than-significant. Implementation of **Mitigation Measure AIR-1** as identified above would further reduce and minimize construction-related emissions. Therefore, the Proposed Project would not result in a cumulatively considerable net increase of any criteria air pollutants, and the Proposed Project impacts would be **less than significant** with implementation of **Mitigation Measure AIR-1** described above.
- d) **Less than Significant Impact with Mitigation.** Diesel emissions would result both from diesel-powered construction vehicles and any diesel trucks associated with project operation. Diesel particulate matter (DPM) has been classified by the California Air Resources Board as a toxic air contaminant for the cancer risk associated with long-term (i.e., 70 years) exposure to DPM. Given that construction would occur for a limited amount of time and the limited number of sensitive receptors in the project area, localized exposure to DPM would be minimal. As a result, the cancer risks from the Proposed Project associated with diesel emissions over a 70-year lifetime are very small. Therefore, the impacts related to DPM would be less-than-significant. Likewise, as noted above, the Proposed Project would not result in substantial emissions of any criteria air pollutants either during construction or operation with the implementation of **Mitigation Measure AIR-1** as identified above. Therefore, the Proposed Project would not expose sensitive receptors, including residents, churches and schools in the project vicinity, to substantial pollutant concentrations. As a result, impacts to sensitive receptors would be **less than significant**. No additional mitigation measures are required.
- e) **Less than Significant Impact.** Land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, and dairies. The project area is in the vicinity of the existing City of Davis WWTP, the Yolo County Landfill, and existing agricultural land. The odor generated by project operations and facilities would be consistent with existing uses. The existing WWTP and Proposed Project facilities are sited far away from substantial population concentrations, approximately 2,300 feet north east of the nearest sensitive receptor, and objectionable odors created by project facilities would be **less than significant**.
-

Biological Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
4. BIOLOGICAL RESOURCES— Would the project:				
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 Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The study area is located in the central portion of the southern Sacramento Valley (**Figure 1-1**). Historically, this region supported extensive marshes, riparian woodlands intermixed with oak woodland, vernal pools, and grasslands. Intensive agricultural and urban development has resulted in substantial changes and conversions of these habitats. Native plant communities occur along the Willow Slough Bypass and within the Davis Restoration Wetlands Area, which are located adjacent to the study area. The “study area” referred to in this section includes the approximately 69.79-acre WWTP study area and the approximately 94.63-acre discharge pipeline alignment study area located east of the WWTP (**Figures 2-1 and 2-2**). The WWTP study area is primarily paved and contains existing facilities and development, overland flow area to the east of the WWTP, and agricultural channels along the eastern and northern perimeters. The proposed discharge pipeline study area supports several habitat types, including annual grassland, freshwater emergent wetland, riverine, lacustrine, agriculture (rice cropland and dryland grain cropland that is currently fallow), barren (gravel and paved access roads), and developed areas (**Figures 2-1 and 2-2**). Notable habitats that are not paved at the WWTP site include the treatment ponds, wastewater return flow channels, and

overland flow areas which are open areas actively used for the treatment of wastewater (Figure 2-1). Habitat in the effluent discharge area at Discharge Point 001 along Willow Slough Bypass is dominated by annual grassland and riverine habitat. Limited freshwater emergent wetland habitat occurs along the banks of the channel directly south of the WWTP where a short segment of riverine channel meets the main Willow Slough Bypass channel.

Study Methods and Data Sources

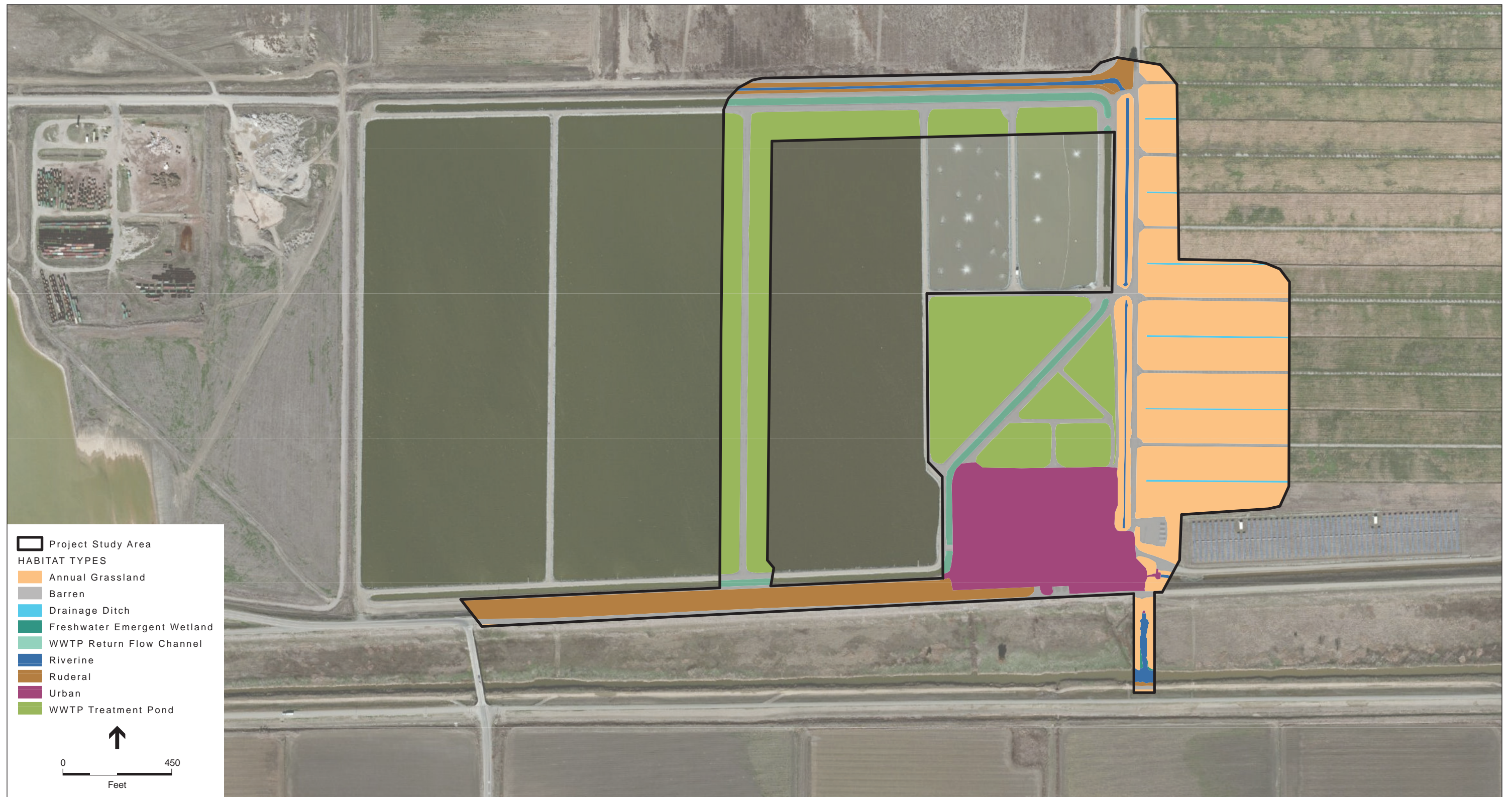
Biological resources within the study area were identified by ESA biologists through field reconnaissance, a review of pertinent literature, and database queries. The primary sources of data referenced for this report included the following:

- Federal Endangered and Threatened Species that may be Affected by Projects in the Davis, Grays Bend, Woodland, and Merritt, California 7.5-Minute Topographic Quadrangles (USFWS, 2013);
- California Natural Diversity Database (CNDDDB), Rarefind 4 computer program (California Department of Fish and Wildlife [CDFW], 2013);
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS, 2013)
- Special Vascular Plants, Bryophytes, and Lichens List (CDFW, 2013);
- Special Animals List (CDFW, 2013); and
- Ecological Subregions of California (Miles and Goudey, 1997).

ESA biologist Robert Jones conducted a biological survey of the WWTP study area on January 29, 2013 and ESA biologists LeChi Huynh and Lindsay Tisch conducted a biological survey of the discharge pipeline study area on March 5, 2013. An additional biological survey was conducted on May 2, 2013 to survey the proposed Drying Bed and Detention Basin areas, the proposed modifications to the Willow Slough Bypass Flood Protection Levee, and the proposed road widening area along County Road 28 H. The surveys for the WWTP study area were conducted on foot, while the survey for the discharge pipeline study area was conducted by driving and walking along the proposed pipeline alignment. Surveyors recorded habitat types, plants and wildlife species, and locations of culverts and flood gates within and adjacent to the study areas. The field surveys focused on identifying and delineating habitat for special-status plant and wildlife species, although general habitat conditions were noted and incidental species observations were recorded. A formal wetland delineation has not been conducted for the Proposed Project.

Plant Communities and Wildlife Habitats

Plant communities are assemblages of plant species that occur together in the same area. They are defined by species composition and relative abundance. The plant community and wildlife habitat descriptions and nomenclature used in this section generally follows the classification system of A Guide to Wildlife Habitats of California or CWHR (CDFG, 1988). The CWHR habitat classification scheme has been developed to support the CWHR System, a wildlife information system and

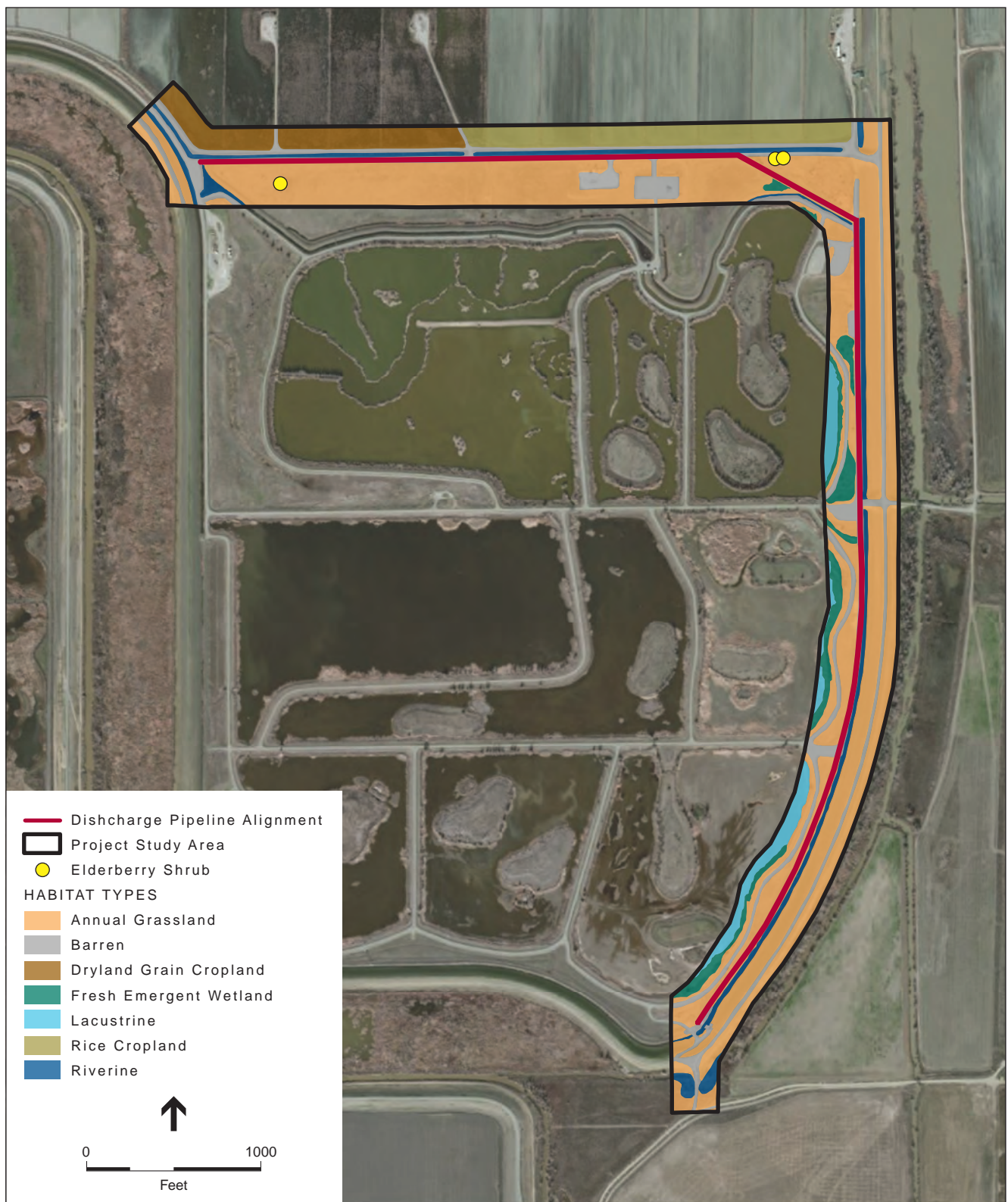


SOURCE: USDA, 2010; and ESA, 2013

Davis WWTP Upgrade Project . 209071

Figure 2-1
Habitats within the WWTP Study Area

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SOURCE: USDA, 2010; and ESA, 2013

City of Davis WWTP Improvement Project . 209071
Figure 2-2
 Habitat within the Discharge Pipeline Study Area

predictive model for California's regularly occurring birds, mammals, reptiles and amphibians. Habitats that do not conform to the CWHR system, such as those artificially created as part of the WWTP are noted in **Table 2-5**.

**TABLE 2-5
HABITAT TYPES WITHIN THE STUDY AREA**

Habitat Type	Area (acres)
Discharge Pipeline Study Area	
Annual Grassland	51.93
Dryland Grain Cropland (Fallow)	5.33
Rice Cropland (Fallow)	6.34
Freshwater Emergent Wetland*	3.59
Lacustrine*	3.41
Riverine*	6.32
Barren	17.71
Total for the Discharge Pipeline Study Area	94.63
WWTP Study Area	
Annual Grassland	19.95
Barren	11.02
Drainage Ditch*+	0.37
Freshwater Emergent Wetland*	0.02
Return Flow Channel*+	2.12
Riverine*	1.10
Ruderal	5.64
Urban	8.58
Treatment Pond*+	20.99
Total for the WWTP Study Area	69.79
* Wetlands and other waters of the U.S. have not been formally delineated and the jurisdictional status has not been verified by the U.S. Army Corps of Engineers. + Feature artificially created and associated with the operation of the WWTP. SOURCE: ESA, 2013	

Annual Grassland

Annual grassland occurs in abundance adjacent to the WWTP and throughout the proposed discharge pipeline study area. This habitat type occurs along levee slopes, in association with riverine habitat, at the overland flow area and adjacent to access roads and levee roads within and adjacent to the study area. Annual grassland habitat in the study area is primarily dominated by nonnative Mediterranean annual grasses such as wild oats (*Avena fatua*), soft chess (*Bromus hordeaceus*) and ripgut brome (*B. diandrus*). Native perennial grasses as well as native and nonnative forbs were noted in the study area including beardless wild rye (*Elymus triticoides*), yellow starthistle (*Centaurea solstitialis*), cocklebur (*Xanthium strumarium*), bristly ox-tongue (*Helminthotheca echinoides*), milkthistle (*Silybum marianum*), wild radish (*Raphanus sativus*), hedge mustard (*Sisymbrium officinale*), and dove's foot geranium (*Geranium molle*), among others. A variety of birds such as red-tailed hawk (*Buteo jamaicensis*), western meadowlark (*Sturnella neglecta*), ring-

necked pheasant (*Phasianus colchicus*), and mourning dove (*Zenaida macroura*) were observed using the annual grassland habitat. Other wildlife such as western fence lizard (*Sceloporus occidentalis*), field mice (*Peromyscus maniculatus*), California vole (*Microtus californicus*), and black-tailed jackrabbit (*Lepus californicus*) are also commonly observed in annual grassland habitat.

Dryland Grain Cropland (Fallow)

Dryland grain cropland is characterized by non-irrigated lands used for producing grasses (barley, cereal rye, oats, wheat, and other grains). Grain crops are typically annuals that are planted in rows and produce dense stands, forming 100 percent cover at maturity. Crops are normally planted in the fall and harvested in the spring and are regulated by the crop cycle. Crops may be grown for one year, then the land is allowed to be fallowed (remain uncultivated) for one or more years. Dryland grain cropland habitat in the discharge pipeline study area is currently fallow. Dryland grain cropland and fallow farmland provides habitat for a variety of rodent and bird species that are adapted to thriving in croplands. Hawks, owls, and other predators feed on prey populations in these areas. In the study area, this habitat type occurs in association with rice cropland and riverine (irrigation channels) habitats.

Rice Cropland (Fallow)

Rice is an annual grass that is cultivated in flood irrigated fields. Commercial rice grows up to 1.5 meters tall in leveed fields that are flooded for the majority of the growing period and dried out to mature the crop and to facilitate harvesting. Rice is usually planted in the spring and harvested in the fall and produces 100 percent cover at maturity. Rice habitats are similar to seasonally flooded wetland habitats and occur in association with other croplands in the Central Valley of California. Many species of wildlife, including waterfowl, shorebirds, and wading birds, have adapted to foraging in rice croplands. Some species of waterfowl and sandhill cranes (*Grus canadensis*) benefit from waste rice that remains in the field following harvest. In the study area, rice cropland occurs within the discharge pipeline study area (currently fallow).

Freshwater Emergent Wetland

Freshwater emergent wetlands are dominated by erect, rooted herbaceous hydrophytic plants growing up to two meters tall. This habitat is frequently flooded; consequently the roots of the plants are adapted to an anaerobic environment. Typical plant species occurring in freshwater emergent wetland habitats include baltic rush (*Juncus balticus*), yellow nutgrass (*Cyperus esculentus*), common cattail (*Typha latifolia*), narrowleaf cattail (*Typha angustifolia*), and tule/bulrush (*Schoenoplectus acutus* var. *occidentalis*), among others. In the WWTP study area, freshwater emergent wetland occurs intermittently within agricultural channels (riverine habitat) located east and north of the WWTP. In the discharge pipeline study area, freshwater emergent wetland occurs within agricultural channels (riverine habitat), at the margins of lacustrine habitat, and in association with annual grassland habitat. Freshwater emergent wetland provides food, cover, and water for more than 160 species of birds and numerous mammals, reptiles, and amphibians. Many species complete their entire life cycle within freshwater emergent wetland habitat. In the discharge pipeline study area, freshwater emergent wetland provides habitat for a variety of waterfowl and wading bird species, as well as special-status species such as giant garter snake (*Thamnophis gigas*).

Lacustrine

Lacustrine habitats are inland depressions or dammed riverine channels containing standing water that range from a few centimeter to hundreds of meters in depth. Lacustrine habitat varies from small ponds to large lakes and reservoirs. The plants and animals found in each zone of water depth are adapted to different levels of light and oxygen availability. Lacustrine habitats are used by many mammals, birds, reptiles, and amphibians for reproduction, food, water, and cover. Lacustrine habitat is present in the discharge pipeline study area in association with fresh emergent wetland. Species observed in lacustrine habitat during the biological survey include northern shoveler (*Anas clypeata*), double-crested cormorant (*Phalacrocorax auritus*), and American white pelican (*Pelecanus erythrorhynchos*).

Riverine

Riverine habitat in the discharge pipeline study area includes agricultural channels that convey water throughout the Davis Restoration Wetlands Area and deliver water to adjacent farm lands. These channels vary from intermittent to perennially flowing and support sparse to dense vegetation. Some segments of riverine habitat contain dense areas of narrowleaf cattail or other hydrophytic vegetation. Riverine habitat in the WWTP study area include agricultural channels that flank the east and north perimeters of the WWTP; these channels flow intermittently to perennially and contain patches of tule/bulrush. Stream channels provide suitable habitat for a variety of wildlife, including water fowl and wading birds, insectivorous birds, amphibians, reptiles, mammals, and fish. Species observed in riverine habitat during the biological survey include great egret (*Ardea alba*), American coot (*Fulica americana*), and mallard (*Anas platyrhynchos*).

Barren

Barren habitat is defined by the absence of vegetation (less than two percent total vegetation cover by herbaceous species and less than 10 percent cover by tree or shrub species). Existing barren habitats in the study area include gravel roads and gravel pads along the proposed discharge pipeline alignment and paved or graveled areas within the WWTP study area. Barren areas provide limited opportunities for wildlife; however, certain species are known to use barren habitat, including killdeer (*Charadrius vociferus*).

Ruderal

Ruderal habitat in the study area occurs in association with annual grassland, agricultural channel banks, and edges of gravel access roads and paved roadways. Dominant plant species that occur in ruderal habitat are predominantly non-native weedy species, including cheeseweed (*Malva parviflora*), milkthistle, bristly ox-tongue, lambsquarter (*Chenopodium album* var. *album*), and rabbits foot grass (*Polypogon monspeliensis*), among others. A few native species occur in ruderal areas, including panicle willow weed (*Epilobium brachycarpum*), saltgrass (*Distichlis spicata*), and foxtail barley (*Hordeum jubatum*). Ruderal habitat provides limited foraging and cover opportunities for wildlife; however, certain species are known to use ruderal habitat, including mourning dove and reptiles.

Urban

Urban or developed habitats in the study area include the existing facilities at the WWTP and roadways and parking spaces. Existing buildings and structures in the study area include the operations building, chemical and hazardous materials storage facilities, tanks, digesters, and maintenance shed. Urban vegetation associated with developed areas consists of lawns, ornamental shrubs, shade trees and hedges. Generally, wildlife use of landscaped areas increases with the distance from urban areas, plant species diversity and varied structure, and proximity to natural habitats. In the study area, landscaped vegetation may provide habitat for common species such as house sparrow (*Passer domesticus*), house finch (*Carpodacus mexicanus*), and western scrub jay (*Aphelocoma californica*).

Treatment Ponds

Treatment ponds are artificially created ponds that function in association with the WWTP. Although the ponds are associated with an urban setting, water in the ponds provide limited habitat for waterfowl. Ponds that do not contain water may support ruderal vegetation over time. Features such as rip-rap along the slopes of the ponds and ruderal vegetation that develops over time can serve as suitable habitat for reptiles and ground squirrels.

Return Flow Channels

Return flow channels are artificially created gravel-lined channels that function in association with the WWTP. These channels may provide limited habitat for waterfowl.

Drainage Ditches

Drainage ditches are artificially created channels that occur at the overland flow treatment area to facilitate overland drainage and recirculation of the spraying system. These channels provide habitat and water for water fowl and other bird species that forage in the field during active operation of the spray system.

Special-Status Species

Special-status plant species are legally protected under state and federal Endangered Species Acts or other regulations and species that are considered sufficiently rare by the scientific community to qualify for such listing. These species are in the following categories:

1. Species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (50 Code of Federal regulations [CFR] 17.12 [listed plants], 17.11 [listed animals] and various notices in the Federal Register [FR] [proposed species]).
2. Species that are candidates for possible future listing as threatened or endangered under the federal Endangered Species Act (61 FR 40, February 28, 1996);
3. Species listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (14 California Code of Regulations [CCR] 670.5);

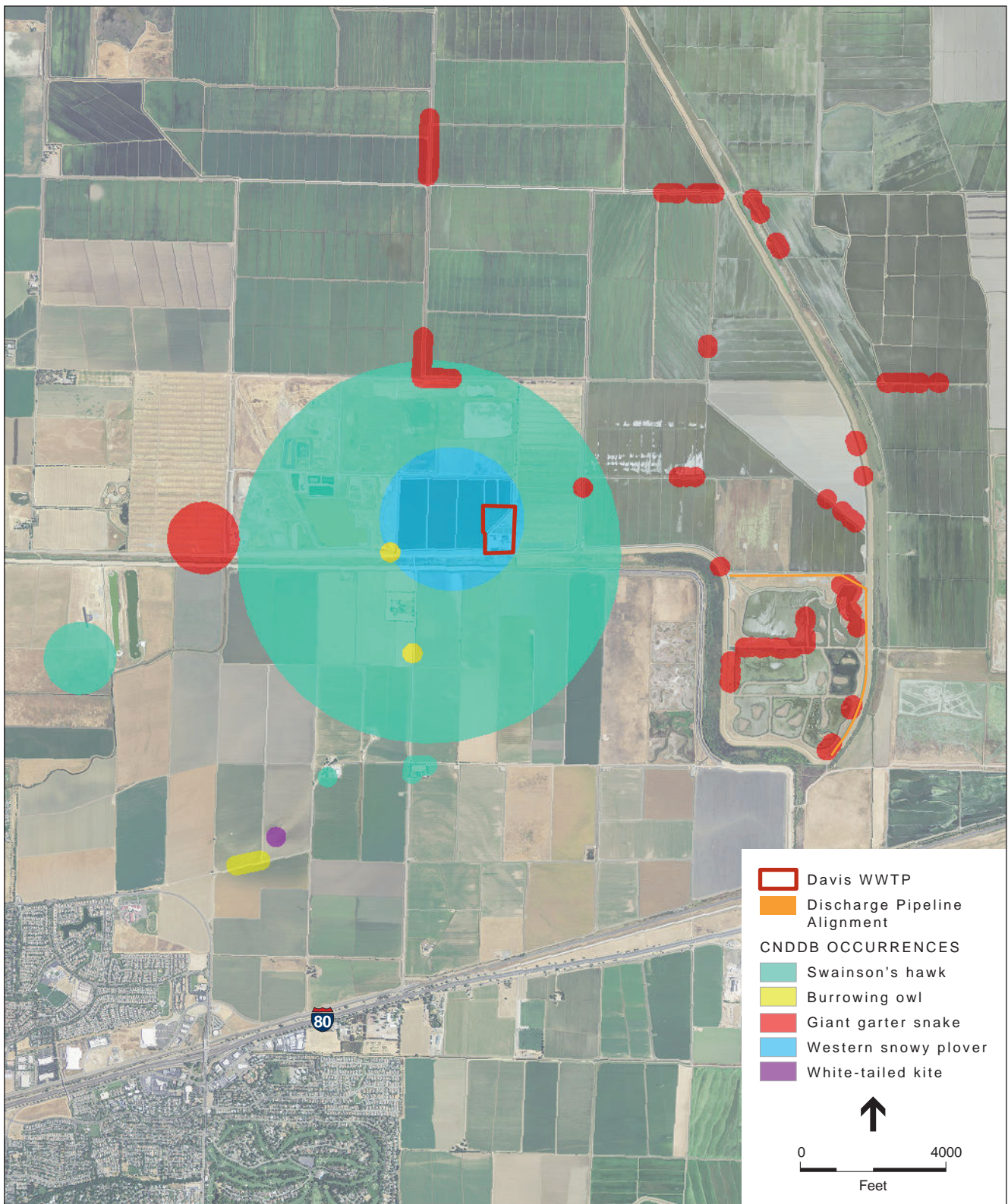
4. Plants listed as rare or endangered under the California Native Plant Protection Act (California Fish and Game Code, Section 1900 et seq.);
5. Species that meet the definitions of rare and endangered under CEQA. CEQA Section 15380 provides that a plant or animal species may be treated as “rare or endangered” even if not on one of the official lists (State CEQA Guidelines, Section 15380); and
6. Plants considered under the CNPS to be “rare, threatened or endangered in California” (Rank 1A, 1B, and 2 in CNPS, 2013) as well as CNPS Rank 3 and 4¹ plant species.

A list of special-status species that have the potential to occur within the vicinity of the project study area was compiled based on data in the CNDDDB (CDFW, 2013), the USFWS list of Federal Endangered and Threatened Species that Occur in or may be Affected by the Project (USFWS, 2013), and the CNPS Inventory of Rare and Endangered Plants (CNPS, 2013). A list of special-status species, their general habitat requirements, and an initial assessment of their potential to occur within the project area is provided below in **Table 2-6** and in **Appendix D**. Recorded observations of special-status species are shown in **Figure 2-3** (CDFW, 2013). Table 2-6 only lists those special-status plants and animals with medium to high potential to occur within the study area. The full list of species is presented in Appendix D. The “Potential for Occurrence” category is defined as follows:

- Unlikely: The project site and/or immediate area do not support suitable habitat for a particular species or the project site is outside of the species known range.
- Low Potential: The project site and/or immediate area only provide limited habitat for a particular species. In addition, the known range for a particular species may be outside of the immediate project area.
- Medium Potential: The project site and/or immediate area provide suitable habitat for a particular species, and habitat for the species may be impacted.
- High Potential: The project site and/or immediate area provide ideal habitat conditions for a particular species and/or known populations occur in immediate area and within the potential area of impact.

Conclusions regarding habitat suitability and species occurrence are based on reconnaissance surveys conducted by ESA, as well as the analysis of existing literature and databases described previously.

¹ List 3 plants may be analyzed under CEQA §15380 if sufficient information is available to assess potential impacts to such plants. Factors such as regional rarity vs. statewide rarity should be considered in determining whether cumulative impacts to a List 4 plant are significant even if individual project impacts are not. CNPS List 3 and 4 may be considered regionally significant if, e.g., the occurrence is located at the periphery of the species’ range, or exhibits unusual morphology, or occurs in an unusual habitat/substrate. For these reasons, CNPS List 3 and 4 plants should be included in the special-status species analysis. List 3 and 4 plants are also included in the California Natural Diversity Database’s (CNDDDB) Special Plants, Bryophytes, and Lichens List. [Refer to the current online published list available at: <http://www.dfg.ca.gov/biogeodata/>.]



SOURCE: USDA, 2010; CNDDDB, 2013; and ESA, 2013

City of Davis WWTP Improvement Project . 209071
Figure 2-3
 CNDDDB Occurrences near the Project Area

**TABLE 2-6
SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR IN THE PROJECT AREA**

Scientific Name Common Name	Status	Habitat Description / Blooming Period	Potential to Occur in the Project Area
Reptiles			
<i>Emys marmorata</i> Western pond turtle	CSC	A thoroughly aquatic turtle; inhabits ponds, marshes, rivers, streams, and irrigation ditches, usually with aquatic vegetation, below 6,000 feet in elevation. Requires basking sites and suitable (sandy banks or grassy open fields) upland habitat within 0.3 miles of water for egg-laying.	Medium. Suitable habitat is present adjacent to the discharge pipeline alignment. However, the species has not been recorded to occur in the vicinity of the project study area (CDFW, 2013).
<i>Thamnophis gigas</i> Giant garter snake	FT/ST	Generally inhabits marshes, sloughs, ponds, slow-moving streams, ditches, and rice fields which have water from early spring through mid-fall; requires emergent vegetation (such as cattails and bulrushes), open areas for sunning, and high ground for hibernation and escape cover.	High. Suitable habitat is present within the discharge pipeline study area and adjacent to the study area in the Davis Restoration Wetlands Area. Additionally, numerous observations from capture/release studies are recorded in the CNDDB at the Davis Restoration Wetlands Area (CDFW, 2013).
Birds			
<i>Agelaius tricolor</i> Tricolored blackbird	CSC	Largely endemic to California, most numerous in the Central Valley and nearby vicinity. Typically requires open water and foraging grounds within vicinity of the nesting colony. Nests in dense thickets of cattails, tules, willow, blackberry, wild rose, and other tall herbs near fresh water.	Medium. Suitable habitat is present within and adjacent to the discharge pipeline study area; however, there are no records of this species occurring within five miles of the study area (CDFW, 2013).
<i>Athene cunicularia</i> Burrowing owl	CSC	Forages in open plains, grasslands, and prairies; typically nests in abandoned small mammal burrows.	Medium. Potential suitable habitat is present adjacent to the project study area along the slopes of county and levee roads. This species has been observed along steeply sloping road edges approximately 0.5 miles west and southwest of the WWTP study area (CDFW, 2013).
Mammals			
Invertebrates			
<i>Desmocerus californicus dimorphus</i> Valley elderberry longhorn beetle	FT	Breeds and forages exclusively on blue elderberry (<i>Sambucus nigra</i> ssp. <i>caerulea</i>) shrubs, below 3,000 feet in elevation.	High. Suitable habitat (elderberry shrubs) is present within the discharge pipeline study area; however, there are no records of this species occurring within five miles of the study area (CDFW, 2013).

**TABLE 2-6
SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR IN THE PROJECT AREA**

Scientific Name Common Name	Status	Habitat Description / Blooming Period	Potential to Occur in the Project Area
Vascular Plants			
<i>Carex comosa</i> Bristly sedge	2.1	Generally found in lake-margin habitats, 0-1400 feet in elevation. Blooms May-Sept.	Medium. Suitable habitat is present adjacent to the project study area; however, there are no CNDDDB records of the species within 5 miles of the project study area.
<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i> Wooly rose-mallow	1B.2	Prefers freshwater marshes and swamps. Blooms Jun-Sep. 0-360 feet in elevation.	Medium. Suitable habitat is present adjacent to the project study area; however, there are no CNDDDB records of the species within 5 miles of the project study area.
<i>Lilaeopsis masonii</i> Mason's lilaeopsis	SR/1B.1	Generally occurs in riparian scrub, freshwater marsh and brackish-marsh habitats, 0-30 feet in elevation. Blooms Apr-Nov.	Medium. Suitable habitat occurs adjacent to the project study area; however, there are no CNDDDB records of the species within 5 miles of the project study area.

KEY:**Federal: (USFWS)**

FE = Listed as Endangered by the Federal Government
 FT = Listed as Threatened by the Federal Government
 FC = Candidate for listing by the Federal Government

State: (CDFG)

SE = Listed as Endangered by the State of California
 ST = Listed as Threatened by the State of California
 SR = Listed as Rare by the State of California (plants only)
 CSC = California Species of Concern

CNPS: (California Native Plant Society)

Rank 1A = Plants presumed extinct in California
 Rank 1B = Plants rare, threatened, or endangered in California and elsewhere
 Rank 2 = Plants rare, threatened, or endangered in California but more common elsewhere
 Rank 3 = Need more information
 Rank 4 = Limited distribution – a watch list
 0.1 = Seriously endangered in California
 0.2 = Fairly endangered in California
 0.3 = Not very endangered in California
 – = No Listing

SOURCES: USFWS, 2013. CDFG, 2013. CNPS, 2013.

Two federally threatened species have the potential to occur within the discharge pipeline project study area: giant garter snake (*Thamnophis gigas*), and valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*). Additional special-status species that have the potential to occur within the study area include tricolored blackbird (*Agelaius tricolor*), burrowing owl (*Athene cunicularia*) western pond turtle (*Emys marmorata*), and three plant species [bristly sedge (*Carex comosa*), wooly rose-mallow (*Hibiscus lasiocarpus* var. *occidentalis*), and Mason's lilaeopsis (*Lilaeopsis masonii*)]. Long-term monitoring of the WWTP site by the City's Wildlife Resource Specialist indicated that no special-status wildlife species have been observed within the WWTP study area. This is likely due to the fact that the WWTP study area primarily supports barren and urban habitats that are highly disturbed (McNerney, 2012).

Special-Status Wildlife

Giant Garter Snake

The giant garter snake is one of the largest garter snakes of the genus *Thamnophis*, with a total length often exceeding five feet. They are diurnal predators that prey on fish and amphibian adults and larvae. Giant garter snakes will prey on introduced gamefish and bullfrogs where native species are absent. Winter retreats utilized by the giant garter snake include small mammal burrows and man-made structures such as piles of large rocks or riprap. Adult and juvenile garter snakes emerge from their winter retreats in mid-March or early April with live young born from late July through early September. They are active from the time of emergence to the end of October, with surface activity concentrated from April to July (Zeiner et al., 1988-1990).

Habitat types utilized by giant garter snakes include freshwater marshes, flooded rice fields, sloughs, and drainage canals. Giant garter snakes are absent from larger rivers. Giant garter snakes are extremely aquatic, and are usually found within a few feet of water, often between the water level and the top of adjacent banks (Zeiner et al., 1988-1990).

The giant garter snake was listed as Threatened by USFWS and CDFW in 1993 and 1971, respectively. Threats to this species include loss of habitat, flood control practices, changes in agricultural and land management practices, water pollution, and pesticide use (Zeiner et al., 1988-90).

Within the study area, suitable habitat for giant garter snake is present in riverine habitat and the margins of lacustrine habitat within the Davis Wetlands site at the discharge pipeline study area. Suitable basking habitat for giant garter snake includes gravel access roads located throughout the Davis Restoration Wetlands Area. Giant garter snake observations (through capture and release studies) have been recorded in several locations within the discharge pipeline study area (Figure 2-3) (CDFW, 2013).

Tricolored Blackbird

Tricolored blackbird is a passerine species that is common locally throughout the Central Valley and in coastal districts from Sonoma County south. Breeding habitat is typically located near fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, and other tall herbaceous vegetation. Tricolored blackbird forages

in grassland and cropland habitats, with the primary diet consisting of insects, spiders, seeds and cultivated grains. Tricolored blackbird roosts in large flocks in emergent wetland or in trees (Zeiner et al., 1988-1990).

The breeding season for tricolored blackbird spans from mid-April into late July. Breeding typically occurs in colonies and varies in size from a minimum of 50 nests to over 20,000 in larger areas (Zeiner et al., 1988-1990). Within the discharge pipeline study area, suitable foraging and nesting habitats are present in fresh emergent wetland within riverine habitat and along the margins of lacustrine habitat.

Valley Elderberry Longhorn Beetle

Valley elderberry longhorn beetles are unique insects that spend the majority of their life cycle within the stems of an elderberry (*Sambucus* spp.) shrub. Females lay eggs within the bark, where larvae hatch and bore into the stems. Larvae remain within the stems for one to two years. In March, when the elderberries begin to flower, they pupate and emerge as adults. Mating usually occurs in June. Often the only indicators of their presence are the distinctive small oval openings that are left after larvae pupate and emerge (UC Berkeley, 2005).

Valley elderberry longhorn beetles utilize elderberry shrubs with a stem diameter of at least 1-inch (at ground level) as a host plant. In the Central Valley, elderberry shrubs are fairly common in remaining riparian forests and adjacent uplands (UC Berkeley, 2005). Elderberry shrubs are typically found growing in association with other riparian species, but they can also occur as isolated shrubs in upland areas.

Valley elderberry longhorn beetle is listed as Threatened by USFWS, with Critical Habitat designated in 1980 and a final Recovery Plan issued in 1984. Decline has been primarily due to loss of riparian forests; it has been estimated that over 90% of historical riparian forests have been lost to development or agriculture (UC Berkeley, 2005). Elderberry shrubs are present within the discharge pipeline study area in several locations (Figure 2-2).

Burrowing Owl

The burrowing owl is a small diurnal owl that nests underground in the burrows of small mammals, especially those of ground squirrels. Culverts and other human-made structures may also be suitable habitat for the burrowing owl. Often a burrowing owl will occupy several burrows in an area. In the Central Valley, the burrowing owl is a year-round resident of open spaces such as grasslands, agricultural fields, air fields, and levees. Vegetation must be very short or very sparse to be suitable habitat for burrowing owl. Breeding peaks from April to May, but can occur from March to August. The burrowing owl forages on insects and small mammals and will also consume reptiles, birds, and carrion (Zeiner et al., 1988-1990).

The open fields adjacent to the study area are suitable foraging habitat for burrowing owls. Ground squirrel or other small mammal burrows along the top of roadway slopes in the vicinity of the project study area provide nesting habitat for burrowing owl. The nearest known CNDDB occurrences are approximately 0.5 miles west and southwest of study area (CDFW, 2013).

Western Pond Turtle

Pond turtles are aquatic turtles of permanent or nearly permanent ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation generally below 6,000 feet in elevation. They require basking sites such as partially submerged logs, vegetation mats, or open mud banks, and suitable upland habitat with well-drained soils for egg-laying, such as sandy banks or grassy, open fields (Zeiner et al., 1988-1990).

Lacustrine and riverine habitat within the discharge pipeline study area may provide suitable habitat for western pond turtle. Annual grassland habitat adjacent to aquatic features in the study area provides suitable nesting substrate for pond turtles. Western pond turtles are known to occur less than 0.5 miles west of the study area (CDFW, 2013).

Special-Status Plants

Bristly Sedge

Bristly sedge is a perennial herb in the sedge family (*Cyperaceae*) growing to five feet tall. This species occurs along lake margins and edges of aquatic habitats, including freshwater wetlands and wetland-riparian plant communities. It occurs almost always in wetlands under natural conditions, at elevations between 0 and 467 meters. Bristly sedge is a plant species that is rare in California but is more common elsewhere (CNPS, 2013). Bristly sedge blooms from May through September (CalFlora, 2013).

Freshwater emergent wetland within the discharge pipeline study area provides suitable habitat for bristly sedge. However, this species was not been observed during the biological survey and is not recorded in the CNDDDB within five miles of the study area (CDFW, 2013).

Woolly Rose-Mallow

Woolly rose mallow is a perennial rhizomatous herb in the mallow family (*Malvaceae*). It is a California-endemic species that is found in freshwater marshes and swamps in northern Central Valley at elevations ranging between 0 and 120 meters. The blooming period for this species is between June and September. Woolly rose-mallow is rare and fairly endangered in California due to habitat disturbance, development, agriculture, recreational activities, and channelization of the Sacramento River and its tributaries (CNPS, 2013).

Freshwater emergent wetland within the discharge pipeline study area provides suitable habitat for the woolly rose-mallow. However, this species was not been observed during the biological survey and is not recorded in the CNDDDB within five miles of the study area (CDFW, 2013).

Mason's Lilaeopsis

Mason's lilaeopsis is a perennial rhizomatous herb in the carrot family (*Apiaceae*). It occurs in brackish and freshwater marshes and swamps, as well as riparian scrub between 0 and 10 meters in elevation. It is locally common in Suisun Bay, though it is seriously endangered in California (CNPS, 2013). Mason's lilaeopsis is threatened by erosion, channel stabilization, development, flood control projects, recreation, agriculture, shading through marsh succession, and competition

with non-native species. Many populations are ephemeral and occur opportunistically as newly deposited or exposed sediments are available.

Fresh emergent wetland within the discharge pipeline study area provides suitable habitat for Mason's lilaeopsis. However, this species has not been observed during the biological survey or recorded in the CNDDDB within five miles of the study area (CDFW, 2013).

Sensitive Natural Community

A sensitive natural community is a biological community that is regionally rare, provides important habitat opportunities for wildlife, is structurally complex, or is in other ways of special concern to local, state, or federal agencies. CEQA identifies the elimination of such communities as a significant impact. The CDFW tracks sensitive natural communities in the CNDDDB. Most sensitive natural communities are given special consideration because they perform important ecological functions, such as maintaining water quality and providing essential habitat for plants and wildlife. Some plant communities support a unique or diverse assemblage of plant species and therefore are considered sensitive from a botanical standpoint. Regionally occurring sensitive natural communities identified by the CNDDDB (2013) include Valley oak woodland. However, this sensitive community is not present within the study area.

Critical Habitat

Critical habitats are areas considered essential for the conservation of a special-status species listed as endangered or threatened under the federal Endangered Species Act. Critical habitats are specific geographic areas that contain features essential for conservation of special-status species and may require special management and protection. Critical habitat may include an area not currently used by an endangered or threatened species, but that will be needed for species recovery. Projects involving a federal agency or federal funding are required to consult with the USFWS to ensure that project actions will not destroy or adversely modify critical habitat.

A review of GIS information for USFWS Critical Habitat for Threatened and Endangered Species shows that the study area is currently not located within any designated critical habitat.

Discussion

a) **Less than Significant with Mitigation.**

Special-Status Plants. Although special-status plant species were not observed during the biological surveys nor documented in the past (CDFW, 2013) within the project study area, suitable habitat (freshwater emergent wetland) that could potentially support bristly sedge, woolly rose-mallow, and Mason's lilaeopsis is present within the study area. Construction activities would take place within the existing WWTP boundary and along the alignment of the proposed discharge pipeline on primarily urban, barren, and limited areas of annual grassland and ruderal habitats. However, the proposed flood protection levee would potentially impact riverine and freshwater emergent wetland habitats within agricultural

channels located east and north of the WWTP. The proposed discharge pipeline alignment traverses through the Davis Wetlands area along existing gravel access roads and it is not anticipated that the Proposed Project would directly impact wetland or aquatic habitats. Construction trucks and equipment will use existing paved or gravel access roads for access. Previously disturbed or barren areas within the study area will be used as construction staging areas for the storage of construction equipment and material. Thus, the Proposed Project would have potentially significant impact on special-status plant species in limited areas within the project study area. Implementation of the mitigation measure **BIO-1** described below would reduce potential impacts to special-status plant species to **less-than-significant**.

Mitigation Measure BIO-1 Rare Plants:

To avoid impacts to rare plants, a pre-construction survey for rare plants will be conducted in the appropriate blooming season for the above listed plants identified as having moderate to high potential to occur within the study area. Prior to construction, vegetated portions of the project site including wetland habitats ~~would~~ will be surveyed by a qualified botanist for special-status plants following established CDFW *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* (CDFG, 2009), which calls for protocol-level surveys during the appropriate flowering/identification period for each potentially affected species.

If rare plants are found, they shall be documented in the CNDDDB and CDFW shall be consulted regarding further measures to avoid/minimize impacts to identified rare plants. Per consultation with the CDFW, the following measures shall be implemented where feasible:

- Avoid existing, known populations where possible;
- Minimize impacts by restricting removal of plants to a few individuals of a population where possible; and
- Prepare a Mitigation and Monitoring Plan to relocate plants and/or seed banks or reintroduce new populations in suitable habitat and soil types within the on-site Preserve or at a CDFW-approved off-site location.

Special-Status Wildlife. As previously described, the project study area contains elderberry shrubs, freshwater emergent wetland, riverine, and lacustrine habitats that could potentially support several special-status wildlife species, including giant garter snake, tricolored blackbird, valley elderberry longhorn beetle, and western pond turtle. Additionally, cropland and annual grassland habitats within and adjacent to the study area provides foraging habitat for raptors species (including Swainson's hawk (*Buteo swainsoni*) and white-tailed kite (*Elanus leucurus*)) and burrowing owl. Open short grasslands and plowed agricultural fields surrounding the project site may provide suitable foraging habitat for the mountain plover (*Charadrius montanus*) during the winter. However, there are no suitable nesting habitats for these species within the project study area. Temporary construction activities in limited areas of annual grassland habitat may temporarily reduce foraging habitat for raptor species but the Proposed Project does not anticipate on impacting raptor or migratory bird

nesting habitat due to the lack of suitable nesting habitat within the study area. The proposed construction activities would have the potential to indirectly impact freshwater emergent wetland, lacustrine, and riverine habitats, and potentially impact elderberry shrubs and the giant garter snake. Operational activities associated with the cessation of treated water discharge at point 001 could directly impact freshwater emergent wetland and riverine habitats at the point of discharge and indirectly impact freshwater emergent wetland, riverine, and lacustrine habitats downstream of discharge point 001. Implementation of the mitigation measures listed below would reduce potential impacts to special-status wildlife species to **less-than-significant**.

Giant Garter Snake

Proposed construction activities along the discharge pipeline alignment may indirectly affect the giant garter snake, a federally threatened species. This species may be adversely impacted by the proposed discharge pipeline due to construction activities occurring adjacent to suitable aquatic habitat (riverine channels and freshwater emergent wetland) and on potential basking habitat (gravel access roads). Operational impacts associated with the cessation of treated water discharge from the existing WWTP at point 001 could result in direct impacts to suitable aquatic habitat (riverine and limited freshwater emergent wetland) at the point of discharge and indirect impacts to suitable habitat downstream of discharge point 001. However, mitigation measure **BIO-2** will reduce potential impacts to less-than-significant.

Tricolored Blackbird

Although there is suitable habitat for tricolored blackbird in the project study area, the species was not been observed during biological surveys and is not recorded in the CNDDB within five miles of the study area (CDFW, 2013). Proposed construction activities along the discharge pipeline alignment may indirectly affect nesting activities for tricolored blackbird where construction activities occur adjacent to freshwater emergent wetland. Mitigation measure **BIO-3** will reduce potential impacts to less-than-significant.

Valley Elderberry Longhorn Beetle

Potential indirect impacts for valley elderberry longhorn beetle are identified as any project activity occurring within 100 feet of a suitable elderberry shrub (USFWS, 1999), the primary habitat for the beetle. Elderberry shrubs occurring within the discharge pipeline study area are located within 100 feet of proposed construction activities and ground disturbance within 100 feet of any suitable elderberry shrub would constitute an indirect impact. The Proposed Project does not anticipate direct impacts on elderberry shrubs. Mitigation measure **BIO-4** will reduce potential impacts to less-than-significant.

Burrowing Owl

Burrowing owl habitat occurs along the slopes of county roads adjacent to the project study area. CNDDB records indicate that burrowing owls are present within approximately 0.5 miles of the WWTP along the slopes of roadways (CDFW, 2013). Although no suitable nesting habitat was identified within the study area during recent biological surveys, annual grassland and agricultural lands within and adjacent to the study area may provide suitable

foraging habitat for burrowing owl. The proposed discharge pipeline portion of the Proposed Project may temporarily reduce foraging habitat for burrowing owl through disturbance of limited areas of annual grassland habitat. Mitigation measure **BIO-5** will reduce potential impacts to less-than-significant.

Western Pond Turtle

Proposed construction activities along the discharge pipeline alignment may indirectly affect the western pond turtle. This species may be adversely impacted by the proposed discharge pipeline due to construction activities occurring adjacent to suitable aquatic habitat (riverine channels and freshwater emergent wetland) and on potential basking habitat (gravel access roads). The cessation of treated water discharge from the existing WWTP at point 001 may directly impact suitable habitat for the western pond turtle. The cessation of water discharge could also result in indirect impacts to suitable aquatic habitat (riverine and limited freshwater emergent wetland) downstream of the point of discharge. However, Mitigation measure **BIO-6** will reduce potential effects to less-than-significant.

Mitigation Measure BIO-2 Giant garter snake:

In order to ensure that impacts to giant garter snake and its habitat shall be avoided or reduced, measures in accordance with the *USFWS Programmatic Formal Consultation for U.S. Army Corps of Engineers 404 Permitted Projects with Relatively Small Effects on the Giant Garter Snake within Butte, Colusa, Glenn, Fresno, Merced, Sacramento, San Joaquin, Solano, Stanislaus, Sutter and Yolo Counties, California* (USFWS, 1997) shall be implemented. These measures include the following:

1. No less than 24-hours prior to the commencement of construction activities, a preconstruction survey shall be conducted to survey for giant garter snakes by a USFWS-approved biologist. The biologist will provide the USFWS with a written report that adequately documents the monitoring efforts within 24-hours of commencement of construction activities. Areas where construction has commenced shall be re-inspected by the monitoring biologist whenever a lapse in construction activity of two weeks or greater has occurred.
2. A Worker Environmental Awareness Training Program for construction personnel shall be conducted by the USFWS-approved biologist for all construction workers, including contractors, prior to the commencement of construction activities. The program shall provide workers with information on their responsibilities with regard to the snake, an overview of the life-history of this species, information on take prohibitions, protections afforded this animal under the federal Endangered Species Act. Written documentation of the training must be submitted to the Sacramento Fish and Wildlife Service Office within 30 days of the completion of training. As needed, training shall be conducted in Spanish for Spanish language speakers.
3. An on-call biologist shall be available for construction personnel to contact in the event that giant garter snake is encountered in the construction footprint.
4. Construction activity within giant garter snake habitat (e.g. aquatic, upland, and rice habitat) shall be conducted between May 1 and October 1. This is the active period for the snake and direct mortality is lessened as snakes are expected to actively

move and avoid danger. If it appears that construction activity may go beyond October 1, the City's prime contractor shall contact the USFWS as soon as possible, but not later than September 15th of the year in question, to determine if additional measures are necessary to minimize take. The City must consult with USFWS to determine measures to avoid impacts to giant garter snake. A USFWS-approved biologist shall inspect construction-related activities for unauthorized take. The biologist shall be available for monitoring throughout all phases of construction that may result in adverse effects to the giant garter snake.

5. Between April 15 and October 1 any surface water that requires dewatering that is considered habitat must remain dry for at least 15 consecutive days after April 15 and prior to excavating or filling the dewatered habitat, except that the area may remain dry for less than 15 days if the dry period extends past October 1.
6. Movement of heavy equipment to and from the project site shall be restricted to established roadways to minimize habitat disturbance.
7. Temporary impacts to giant garter snake habitat shall be restored to pre-project conditions. Areas subject to temporary impacts shall be limited to one season (the calendar year period between May 1 and October 1) and be restored within two seasons. Permanent impacts to giant garter snake habitat shall be replaced at a 3:1 ratio which must include both upland and aquatic habitat components. A portion of the mitigation for permanent loss of wetlands at a ratio no less than 1:1 as required per Mitigation Measure BIO-7 may fulfill a portion of the 3:1 mitigation obligation for permanent impacts to giant garter snake habitat. This mitigation may be fulfilled through in-kind, onsite or off-site, out-of-kind mitigation as approved by the U.S. Fish and Wildlife Service and the Corps.

Mitigation Measure BIO-3 Tricolored blackbird:

1. Prior to commencement of construction, a qualified biologist shall conduct a pre-construction survey for tricolored blackbird and other protected and migratory bird species. The survey will be conducted to identify any active nests located within the construction area or up to 0.5 mile from the construction area.
2. If active nests are found during the survey, the applicant shall implement appropriate mitigation measures to ensure that the species will not be adversely affected, which will include establishing a no-work buffer zone around the active nest. Appropriate mitigation measures include delaying construction activities until a qualified biologist determines that juveniles have fledged the nest(s), or establishing a "no construction" zone buffer of 500 feet around the nest.

Mitigation Measure BIO-4 Valley elderberry longhorn beetle:

Elderberry shrubs will be avoided where possible. The City will ensure that elderberry shrubs within 100 feet of the Proposed Project shall conform to the following guidelines for avoidance of impacts and take as defined under the federal Endangered Species Act for the VELB. These guidelines comply with habitat creation and mitigation measures described in the USFWS Conservation Guidelines for the Valley Elderberry Longhorn Beetle (USFWS, 1999) and the *Programmatic Formal Consultation*

Permitting Projects with Relatively Small Effects on the Valley Elderberry Longhorn Beetle Within the Jurisdiction of the Sacramento Field Office (USFWS, 1996).

1. For all shrubs that can be avoided by construction activities, a 100-foot buffer surrounding the plant shall be maintained at all times. The buffer shall be fenced with temporary fencing and flagging. Signs shall be placed along the fencing every 50 feet that state the following: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment." The above sign shall be readable from a distance of 20 feet and maintained through the duration of construction. Work crews shall be briefed on the status of the beetle, the need to protect its host plant (elderberries), requirements to avoid damaging elderberry shrubs, and possible penalties for not complying with identified avoidance and minimization measures. In addition, construction workers should be made aware of the habitat needs of VELB and the location of protection areas on the site (USFWS, 1999).
2. For indirectly affected shrubs, a 20-foot buffer shall be fenced with temporary fencing and flagging and maintained throughout construction. Signs shall be placed along the fencing as described above, and work crews will be briefed as described above. The project proponent shall restore any damage occurring within 100 feet of elderberry shrubs that are not removed by the project during construction. Erosion control will be provided and the area will be revegetated with appropriate native plants. No insecticides, herbicides, fertilizers, or other chemical shall be used within 100 feet of any elderberry shrub with one or more stems measuring 1 inch or greater in diameter at ground level. A written description of planned restoration, protection, and maintenance of buffer areas post-construction shall be provided.
3. For any directly affected shrubs, the project proponent shall provide compensatory mitigation by either: 1) purchasing credits for all required compensation from the USFWS-approved Conservation Bank, 2) transplanting the shrubs onto the Conservation Bank property and purchasing credits for any remaining mitigation requirements using mitigation ratios described in USFWS Conservation Guidelines for the Valley Elderberry Longhorn Beetle (USFWS, 1999), or 3) transplanting the shrubs onto the Conservation Bank property and planting additional seedlings for any remaining mitigation requirements using mitigation ratios described in USFWS Conservation *Guidelines for the Valley Elderberry Longhorn Beetle* (USFWS, 1999). Each credit purchased from the Conservation Bank will provide compensatory mitigation for five elderberry stems and five associated native plant species. If the shrubs are relocated to the Conservation Bank property, all Conservation Guidelines described by USFWS (1999) for elderberry transplants shall be implemented, and the project proponent's contractor shall coordinate with the Conservation Bank to replant the shrubs.

Mitigation Measure BIO-5 Burrowing owl:

1. Pre-construction surveys for burrowing owls shall be conducted by a qualified biologist (as approved by the CDFW) within 30-days prior to the start of work activities where land construction is planned in known or suitable habitat. Areas where construction has begun shall require new preconstruction surveys if

construction is delayed for more than 30 days after the initial surveys. All surveys shall be conducted in accordance with the CDFW survey protocols.

2. If burrowing owls are discovered in the proposed project site vicinity during construction, the onsite biologist shall be notified immediately. Occupied burrows should not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by the CDFW verifies through non-invasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.
3. If this criteria is not met, occupied burrows during the nesting season will be avoided by establishment of a no-work buffer of 250-foot around the occupied/active burrow. Where maintenance of a 250-foot no-work buffer zone is not practical, the applicant shall consult with the CDFW to determine appropriate avoidance measures. Burrows occupied during the breeding season (February 1 to August 31) will be closely monitored by the biologist until the young fledge/leave the nest. The onsite biologist shall have the authority to stop work if it is determined that construction related activities are disturbing the owls.
4. If criterion 1 or 2 above are met, and as approved by CDFW, the biologist shall undertake passive relocation techniques by installing one-way doors in active and suitable burrows allowing owls to escape but not re-enter. Owls should be excluded from the immediate impact zone and within a 160-foot buffer zone by having one-way doors placed over the entrance to prevent owls from inhabiting those burrows.
5. After nesting season ends (August 31) and the burrow is deemed unoccupied by the biologist, passive relocation techniques shall take place. Construction activities may occur once a qualified biologist has deemed the burrows are unoccupied.

Mitigation Measure BIO-6 Western pond turtle:

1. No more than two weeks prior to the commencement of ground-disturbing activities, the applicant will retain a qualified biologist to perform surveys for western pond turtle within suitable aquatic and upland habitat on the project site. Surveys will include western pond turtle nests as well as individuals. The biologist (with the appropriate agency permits or approvals) will temporarily move any identified western pond turtles upstream of the construction site, and temporary barriers will be placed around the construction site to prevent ingress.
2. Construction shall not proceed until the work area is determined to be free of turtles and their nests. The biologist will be responsible for moving adult turtles that enter the construction zone after construction has begun. If a nest is located within a work area, the biologist (with the appropriate permits or approvals from the CDFW) may move the eggs to a suitable facility for incubation, and release hatchlings into the creek system in late fall. The biologist will be present on the project site during initial ground clearing and all other construction activities adjacent to drainages with the potential to support western pond turtle.

- b) **No Impact.** Riparian habitat is not present in the study area. Other sensitive natural communities identified by the CNDDDB include Valley oak woodland (CDFW, 2013); however, this habitat does not occur in the study area. Thus, construction and operation of the Proposed Project would have **no impact** on riparian habitat and other sensitive natural communities.
- c) **Less than Significant with Mitigation.** The discharge pipeline study area supports freshwater emergent wetland directly adjacent to the proposed pipeline alignment. Proposed construction activities are anticipated to avoid direct impacts to wetland resources. Operational activities associated with the cessation of treated water discharge at point 001 could indirectly and directly impact wetland resources. Potential impacts to wetlands or other waters of the U.S. may result as a result of the implementation of the Proposed Project. It should be noted that a formal wetland delineation has not been conducted for the project study area. Mitigation measure **BIO-7** will reduce potential effects to **less-than-significant**.

Mitigation Measure BIO-7 Federally protected wetlands:

1. The applicant shall avoid and protect federally protected wetlands and riverine habitats located in the vicinity of the project site by installing protective fencing. Protective fencing shall be installed along the edge of construction areas including temporary and permanent access roads where construction will occur within 200 feet of the edge of wetland and riverine habitat (as determined by a qualified biologist). The location of fencing shall be marked in the field with stakes and flagging and shown on the construction drawings. The construction specifications shall contain clear language that prohibits construction-related activities, vehicle operation, material and equipment storage, trenching, grading, or other surface-disturbing activities outside of the designated construction area. Signs shall be erected along the protective fencing at a maximum spacing of one sign per 50 feet of fencing. The signs shall state: "This area is environmentally sensitive; no construction or other operations may occur beyond this fencing. Violators may be subject to prosecution, fines, and imprisonment." The signs shall be clearly readable at a distance of 20 ft, and shall be maintained for the duration of construction activities in the area.
2. If it is determined that the project will directly impact waters of the U.S., the project applicant ~~would~~shall obtain all required permit approvals from the Corps, RWQCB, CDFW and any other agencies with permitting responsibilities for construction activities within jurisdictional features. Permit approvals and certifications would likely include the following:
 - a) Clean Water Act Section 404. Permit approval from the Corps shall be obtained for the placement of dredge or fill material in waters of the U.S. pursuant to Section 404 of the federal Clean Water Act. The Section 404 permit application would require a delineation of wetlands and other waters of the U.S., a jurisdictional determination from the USACE, and preparation of a Pre-Construction Notification (PCN) and supporting documentation. A PCN outlines project activities, areas of impact, construction techniques, and methods for avoiding and reducing impacts to jurisdictional features. State and federal

regulations require that the project applicant avoid or minimize impacts to wetlands and waters and develop appropriate protection for wetlands. Wetlands that cannot be avoided must be compensated to result in “no net loss” of wetlands to ensure that the project ~~would~~shall maintain the current functions and values of onsite wetland habitats.

- b) Clean Water Act Section 401 Water Quality Certification/Porter-Cologne Act. Approval of Water Quality Certification (WQC) under the CWA and/or Waste Discharge Requirements (WDRs) under the Porter-Cologne Act shall be obtained from the RWQCB for work within jurisdictional waters. Application for a WQC requires an application and supporting materials, including construction techniques, areas of impact, mitigation measures, project schedule, and proof of CEQA compliance. Application for a WDR requires an application and supporting materials, including a characterization of the discharge which includes but is not limited to: design and actual flows; a list of constituents and the discharge concentration of each constituent; a list of other appropriate waste discharge characteristics; a description and schematic drawing of all treatment process; a description of any BMPs used; and a description of disposal methods. Proof of CEQA compliance is also required.

- d) **No Impact.** The Proposed Project would not substantially interfere 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 project site is not located within an established native resident or migratory wildlife corridor or wildlife nursery site. Thus, the Proposed Project would have **no impact** on the movement of native resident or migratory fish or wildlife species.

- e) **Less than Significant Impact.** The Proposed Project is located within the planning area of the Yolo County General Plan and is consistent with provisions of the current general plan land use designation for Public and Quasi-Public uses. The Proposed Project would not include the removal trees. The Proposed Project would be consistent with the General Plan’s Goal CO-2, which aims to “protect and enhance biological resources through the conservation, maintenance, and restoration of key habitat areas and corresponding connections that represent the diverse geography, topography, biological communities, and ecological integrity of the landscape.” Implementation of the Proposed Project would result in temporary impacts to biological resources identified within and adjacent to the project study area. However, with the implementation of Mitigation Measures BIO-1 through BIO-7, these impacts would be considered **less-than-significant**.

- f) **No Impact.** The Proposed Project is located within Yolo County, which is a member of the Yolo County Habitat joint powers authority (JPA). The Yolo County Habitat JPA is responsible for developing a combined Habitat Conservation Plan/Natural Communities Conservation Plan (HCP/NCCP), known as the Yolo Natural Heritage Program (Yolo NHP). Currently, the NHP is in the process of developing ecological baseline reports, data bases, and conservation strategies and preserve design alternatives. Thus, the Proposed Project is currently not located within the boundaries of any adopted NCCP or HCP. At this time,

development of the NCCP/HCP is in-progress and has not been adopted by the County and is therefore not applicable to the Proposed Project. Therefore, there would be **no impact**.

Cultural Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
5. CULTURAL RESOURCES— Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The following discussion of cultural resource impacts is based on information summarized from the Cultural Resources Technical Report completed by ESA for the Proposed Project (**Appendix E**).

Discussion

- a) **No Impact.** CEQA Guidelines Section 15064.5 requires the lead agency (AOC) to consider the effects of a project on historical resources. A historical resource is defined as any building, structure, site, or object listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR), or determined by the lead agency (City) to be significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, or cultural annals of California. The project site includes a modern water treatment facility and a man made wetland area; there are no historic period buildings or structures on the site. Therefore, the Proposed Project would have **no impact** on historical resources under CEQA.
- b) **Less-than-Significant with Mitigation.** CEQA requires the lead agency to consider the effects of a project on archaeological resources and to determine whether any identified archaeological resource is a historical resource. CEQA Guidelines Section 15064.5 also requires consideration of potential project impacts on “unique” archaeological resources that do not qualify as historical resources. Public Resources Code (PRC) Section 21083.2 defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one or more of the following criteria. The resource:
- contains information needed to answer important scientific research questions, and there is a demonstrable public interest in that information;

2. has a special and particular quality, such as being the oldest of its type or the best available example of its type; and/or
3. is directly associated with a scientifically recognized important prehistoric or historic event or person.

PRC Section 15064.5(c) (4) provides that, if an archaeological resource is neither a unique archaeological resource nor a historical resource, the effects of a project on the resource are not considered significant.

Archival review completed at the Northwest Information Center (NWIC) of the California Historic Resources Information System on January 28, 2013 and March 4, 2013 determined that twelve previous cultural resources investigations occurred within ½ mile of study area. Previous survey efforts have not recorded prehistoric or historic period cultural resources. A 1994 survey by Far Western did, however, identify several isolates adjacent to the proposed pipeline feature, including charmstones which are indicative of an occupation site. Far Western recorded several isolates across a large area, but stated that, in consideration of the structural fill of the ground cover through levee construction and widely dispersed nature of the resources, the presence of these artifacts did not indicate the presence of a formal site, and no further archaeological investigation was recommended.

ESA requested a search of the Native American Heritage Commission's (NAHC) Sacred Lands File (SLF) database on January 17, 2013. The results of the SLF search failed to indicate the presence of any known sacred Native American sites in the immediate project area. ESA contacted the individuals and organizations affiliated with the area as identified by the NAHC by letter on February 14, 2013 to solicit their comments and concerns regarding the Proposed Project.

On April 24, 2013 ESA received a letter from Marilyn Delgado, Tribal Chairman of the Yocha Dehe Wintun Nation. In her letter she expressed interest in the Proposed Project and requested a site visit of the project area with ESA staff. On April 25, 2013 R. Scott Baxter responded to her request via telephone and e-mail, inviting her to visit the site at her convenience. A site visit was attended on May 3, 2013 by R. Scott Baxter (ESA-archaeologist), Paul Garcia (ESA-project manager), Jeffery Flores (Yocha Dehe Wintun Nation) and Michelle Flores (Yocha Dehe Wintun Nation-tribal cultural monitor). Due to the close proximity of previously recorded Native American artifacts in the eastern-most portion of the project area they requested that a Native American monitor be present during ground disturbing activities. **Mitigation Measure CUL-1** addresses cultural resources impacts subject to monitoring.

ESA archaeologist Scott Baxter, M.A., RPA, conducted an archaeological resources field survey of the project area on February 7, 2013, March 5, 2013, and April 1, 2013. Mr. Baxter did not identify any prehistoric or historic period resources during the course of survey, however, the accidental discovery of archaeological materials during ground-disturbing activities cannot be entirely discounted. The 1994 isolates recorded by Far Western imply a moderately heightened sensitivity for buried archaeological resources, and construction

workers in the pipeline area should be made aware of the increased potential for resources. In the unlikely event that archaeological materials are unearthed, with implementation **Mitigation Measure CUL-2**, project impacts to archaeological resources would be **less-than-significant**.

Mitigation Measure CUL-1: An archaeological and a Native American monitor shall be present during ground disturbing activities associated with the project. These activities may include trenching for the pipeline in the eastern portion of the project area and the development of ponds immediately adjacent to the east side of the main treatment plant facility.

Mitigation Measure CUL-2: If previously undiscovered cultural resources are encountered, all activity in the vicinity of the find shall cease until it can be evaluated by a qualified archaeologist. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil (“midden”) containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-period materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. If the archaeologist determines that the resources may be significant, they will notify the City. An appropriate treatment plan for the resources should be developed. The archaeologist shall consult with Native American representatives in determining appropriate treatment for prehistoric or Native American cultural resources.

- c) **Less-than-Significant Impact.** Paleontology is a multidisciplinary science that combines elements of geology, biology, chemistry, and physics in an effort to understand the history of life on earth. Paleontological resources, or fossils, are the remains, imprints, or traces of once-living organisms preserved in rocks and sediments. The fossil yielding potential of a particular area is highly dependent on the geologic age and origin of the underlying rocks. In general, older sedimentary rocks (more than 10,000 years old) are considered most likely to yield vertebrate fossils of scientific interest.

The project site is located in Holocene-age (10,000 years Before Present [BP] to Present Day) fan alluvial deposits. No known paleontological resources or unique geologic features exist within the project area. Therefore, the Proposed Project is not likely to destroy, either directly or indirectly, a unique paleontological resource or site, or geological feature. Due to the nature of the Proposed Project, any proposed earth moving or excavation will occur in previous backfills or foundation soils. The project area therefore has a very low potential for the unanticipated discovery of fossils. Therefore, the Proposed Project would result in a **less-than-significant** impact on paleontological resources or unique geologic features.

- d) **Less-than-Significant with Mitigation.** Results of the archival review discussed above indicate that the project area has a low potential to contain buried cultural materials including human remains. However, the possibility of uncovering human remains cannot be entirely discounted. In the unlikely event that human remains are uncovered during

ground-disturbing activity, with implementation **Mitigation Measure CUL-3**, project impacts to human remains would be **less than significant**.

Mitigation Measure CUL-3: If human skeletal remains are uncovered during project construction, the project proponent will immediately halt work, contact the Yolo County coroner to evaluate the remains, and follow the procedures and protocols set forth in Section 15064.5 (e)(1) of the CEQA Guidelines. If the County coroner determines that the remains are Native American, the project proponent will contact the NAHC, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by AB 2641). Per Public Resources Code 5097.98, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section (PRC 5097.98), with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.

Geology, Soils, and Seismicity

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
6. GEOLOGY, SOILS, AND SEISMICITY— Would the project:				
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.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Regional Geology

Yolo County lies within the Great Valley and Coast Range geomorphic provinces. The geologic parent material within the region was formed from erosion of mountain ranges to the east and geologic uplift along the western shore of the North American continent. Two hundred and forty-five million years ago, the Great Valley province began forming as deposition of sediment-laden runoff. Eventually, the sediment deposits known as the Great Valley sequence accumulated to a depth of almost six miles (Yolo County, 2009).

Large amounts of sediment continued to be added to the Great Valley sequence until approximately 30 million years ago. All of these processes occurred beneath the sea, and the water captured in the pores of the deeply buried rock is saline (Yolo County, 2009).

The Coast Range continued to be uplifted until approximately 1.6 million years ago. Cache and Putah Creeks began to deposit fresh sediment on top of the Tehama and Red Bluff formations as

a broad and complex alluvial fan. These modern sediments are generally less than 150 feet thick. The meeting of the massive alluvial fans of the Coast Range and Sierra Nevada in the center of the Sacramento Valley confined the Sacramento River to a relatively narrow river valley or basin where it formed its current flood plain and natural levees (Yolo County, 2009).

Soils

In general, soils in the project area are characterized by deep, poorly drained, fine-sandy materials that may contain a high percentage of organic materials. The soils are well suited for deep mechanical preparation, moderately well suited for surface preparation, have a slight erosion hazard, and are all classified as hydric soils. Soils in the project area are primarily associated with the Clear lake series, which consists of very deep, poorly drained soils that formed in fine textured alluvium derived from sandstone and shale. Clear Lake soils are in basins and in swales of drainage ways. Slopes are 0 to 2 percent. (NRCS, 1972).

Soils located within the project area exhibit negligibly to moderately corrosive to concrete and high corrosive potential to uncoated steel (NRCS, 1972). The potential rate of corrosion of concrete is based mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil, while the corrosion rate of uncoated steel is related to soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. Concrete or steel that intersects soil boundaries or layers is more susceptible to corrosion than the steel in installations that are entirely within one kind of soil or soil layer.

Regional Seismicity

The California Building Code (CBC; CCR Title 24) designates the entire northern Central Valley as Seismic Risk Zone 3. For comparison, areas within the San Francisco Bay Area are located within Seismic Risk Zone 4 and are at the highest risk to experience maximum magnitudes and damage in the event of an earthquake. Regionally occurring earthquakes could affect the project area, however, impacts resulting from such an event would likely be less severe than those experienced in the Bay Area.

The procedures and limitations for design of structures in accordance with the CBC consider seismic zoning, site characteristics, occupancy, configuration, structural system and height. Although both Seismic Zones 3 and 4 are susceptible to earthquake ground motion and particular seismic design criteria are required under the CBC, minimum requirements for design in Seismic Zone 4 are typically more rigorous than those required for Seismic Zone 3.

Table 2-7 identifies characteristic earthquakes on each of the active and potentially active faults within 60 miles of the project area. While the magnitude of an earthquake is a measure of the energy released, intensity is a measure of the ground shaking effects at a particular location. Shaking intensity can vary depending on the overall magnitude, distance to the fault, focus of earthquake energy, and type of geologic material. The Modified Mercalli (MM) intensity scale is commonly used to measure earthquake effects due to ground shaking. The MM values for intensity range from I (earthquake not felt) to XII (damage nearly total). MM intensities ranging from IV to X could cause moderate to significant structural damage.

TABLE 2-7
ACTIVE AND POTENTIALLY ACTIVE FAULTS WITHIN 70 MILES OF THE PROJECT AREA

Fault Zone	Location Relative to Project Area	Recency of Faulting^a	Historical Seismicity^b	Slip Rate^c (mm/year)	Maximum Moment Magnitude^d
Dunnigan Hills	10 miles northwest	Holocene	N/A	N/A	6.8
CRCV (Segments 8-9)	10 miles west	Holocene	Coalinga: 6.5 Kettleman Hills: 6.1	3-8	6.0
Vaca Fault	18 miles southwest	Late Quaternary	N/A	N/A	N/A
Cordelia Fault	24 miles southwest	Late Quaternary	N/A	N/A	N/A
Concord –Green Valley	27 miles southwest	Historic	Active Creep ^e	6.0	6.9
Soda Creek Fault	32 miles southwest	Late Quaternary	N/A	N/A	N/A
Hunting Creek- Berryessa Fault	33 miles northwest	Holocene	Historic Creep	Active	6.9
West Napa	36 miles southwest	Holocene	M5.2: 2000	1.0	6.5
Marsh Creek-Greenville	40 miles southwest	Historic	5.8	2.0	6.9
Mayacama (Southern)	50 miles west	Holocene	Historic Creep	N/A	6.9
Healdsburg–Creek	Rodgers 57 miles southwest	Holocene	NA	9.0	7.0
Hayward	54 miles southwest	Historic	M 6.8: 1868 M 7.0: 1838 Many <M 4.5	9.0	6.9
San Andreas (Peninsula and Golden Gate segments)	66 miles west	Historic	M 7.1: 1989 M 8.25: 1906 M 7.0: 1838 Many <M 6	17.0	7.3

a Recency of faulting from Jennings, 1994. Historic: displacement during historic time (within last 200 years), including areas of known fault creep; Holocene: evidence of displacement during the last 10,000 years; Quaternary: evidence of displacement during the last 1.6 million years; Pre-Quaternary: no recognized displacement during the last 1.6 million years (but not necessarily inactive).

b Richter magnitude (M) and year for recent and/or large events.

c Slip Rate = Long-term average total of fault movement including earthquake movement, slip, expressed in millimeters.

d The Maximum Moment Magnitude is an estimate of the size of a *characteristic* earthquake capable of occurring on a particular fault. Moment magnitude is related to the physical size of a fault rupture and movement across a fault. Richter magnitude scale reflects the maximum amplitude of a particular type of seismic wave. Moment magnitude provides a physically meaningful measure of the size of a faulting event (CDMG, 1997). Richter magnitude estimations can be generally higher than moment magnitude estimations.

e Slow fault movement that occurs over time without producing an earthquake.

N/A = Not applicable and/or not available.

SOURCES: Jennings, C. W. 1994, Fault Activity Map of California (with Appendix), CGS, Geologic Data Map No. 6; Peterson, et. al., 1996, PSHA, CSG - Open File Report 96-08; USGS Open-File Report 96-706.

Regional Faults

The nearest fault zones exhibiting historic displacement (activity within the last 200 years) to the Project area are the Concord-Green Valley, Marsh Creek-Greenville, and Hayward fault zones, located approximately 27 miles west, 40 miles west, and 54 miles southwest of the project area, respectively (Jennings, 1994). Other active faults within 70 miles of the Project area are the Dunnigan Hills (Zamora) (10 miles northwest), West Napa (36 miles southwest) Healdsburg-Rodgers Creek (57 miles southwest), and San Andreas (66 miles west).

A seismically-active, concealed (blind) fold and thrust fault belt situated within the Coast Range-Central Valley (CRCV) Geomorphic Boundary is located approximately 10 miles west of the Project area. Earthquakes associated with this fault system include the 6.1 magnitude (Mw) Kettleman Hills and 6.5 (Mw) Coalinga events (Wakabayashi and Smith, 1994). Published estimates of the CRCV slip rate derived from previous studies range from 1 to 10 mm/year, and estimated reoccurrence intervals of the Coalinga-type events range from 200 to 2,000 years. The concealed CRCV thrust is thought to have produced the Vacaville-Winters earthquake of 1892 (estimated 6.75 Mw intensity; Wakabayashi and Smith, 1994).

Potential Geologic / Seismic Hazards

The project area could experience the effects of a major earthquake from one of the active or potentially active faults located within 60 miles of the site. The four major hazards associated with earthquakes are fault surface rupture (ground displacement), ground motion (or ground shaking), ground failure (e.g., liquefaction), and differential settlement, slope instability, and land subsidence. These potential geologic hazards are discussed in the following text.

Potential Ground Motion

The California Geological Survey has determined the probability of earthquake occurrences and their associated peak ground accelerations throughout the State of California. The seismic hazard assessment determines the earthquake hazard that geologists and seismologists agree could occur in California. Current maps produced by the California Geological Survey are based on 10 percent exceedance in 50 years. The peak ground acceleration based on a 10 percent exceedance in 50 years within the project area could range between 0.20 g to 0.30 g (g is force of gravity, wherein ground motion is rated in comparison against acceleration by gravity) (Peterson, et. al, 1999). This range of potential ground acceleration is considered moderate (USGS, 1996).

Surface Fault Rupture

The Concord-Green Valley and Marsh Creek-Greenville fault zones are the closest active faults zoned under the Alquist-Priolo Earthquake Fault Zoning Act to the region and are situated approximately 27 – 40 miles southwest of the project area. The project site is neither located within, nor crosses, a delineated Alquist-Priolo Earthquake Fault Zone. Therefore, the risk of surface fault rupture within the project area is considered low (CDMG, 1997).

Liquefaction

Liquefaction is the sudden temporary loss of strength in saturated, loose to medium dense, granular sediments subjected to ground shaking. Liquefaction can cause foundation failure of buildings and other facilities due to the reduction of foundation bearing strength. The potential for liquefaction at precise points on the project site may vary substantially, and would need to be determined by further engineering design and geotechnical studies.

Earthquake-Induced Settlement

Settlement of the ground surface can occur as a result of the relatively rapid compaction and settling of subsurface materials (particularly loose, non-compacted, and variable sandy sediments) during prolonged ground shaking. Typically, areas underlain by artificial fills, unconsolidated alluvial sediments, and slope wash, and areas with improperly engineered construction fills are susceptible to settlement. Although the general parent material of the soil resources in the project area may indicate a higher risk of earthquake-induced settlement, the potential for earthquake-induced settlement is considered low due to the substantial distance between the project site and a major active fault.

Slope Instability and Landslides

Slope failure, commonly referred to as landslide, include many phenomena that involve the downslope displacement and movement of material, either triggered by static (i.e., gravity) or dynamic (i.e., earthquake) forces. Exposed rock slopes undergo rockfalls, rockslides, or rock avalanches, while soil slopes experience shallow soil slides, rapid debris flows, and deep-seated rotational slides.

Engineered slopes have a tendency to fail if not properly designed, constructed or compacted. Because the project site is generally level, hazards associated with landslides would be limited to slope movements along adjacent levees. However, as the levee provides flood protection, its structural integrity is considered vital to the region and surrounding communities.

Land Subsidence

Subsidence is the gradual lowering of the land surface due to loss or compaction of underlying materials. Subsidence can occur as the result of groundwater, gas and oil extraction, or the decomposition of highly organic soils. The Yolo County Subsidence Network (a joint regional effort) was established in 1999 to provide the opportunity for Yolo County agencies to periodically monitor and measure local subsidence. Participating agencies include: the City of Davis, the City of Woodland, UC Davis, Yolo County Planning and Public Works Department, Yolo County Flood Control and Water Conservation District, the California Department of Water Resources, and the U.S. Army Corps of Engineers (YCWRA, 2008).

Soil-Related Hazards**Erosion**

Erosion is the detachment and movement of soil materials through natural processes or human activities. In general, rates of erosion can vary depending on the soil resource's capacity to drain

water, slope angle and length, extent of groundcover, and human influence. Topography in the project area is generally level with the exception of the toe of the slope of the Sacramento River levee. The erosion potential for soils across this region of Yolo County is generally low.

Expansive Soils

Expansive soils are characterized by a shrink-swell characteristic. Structural damage may result over a long period of time, usually resulting from inadequate soil and foundation engineering or the placement of structures directly on expansive soils. Expansive soils are largely comprised of clays, which expand in volume when water is absorbed and shrink when dried. Soil resources within the project area are comprised of silty clay loams, loams, silty clays, clays and sandy loams, some of which contain expansive clays. Project area soil resources have low to moderate and moderate to high expansive soils. (NRCS, 1972)

Corrosive Soils

Corrosive soils can damage underground utilities including pipelines and cables, and can weaken roadway structures. Project area soils are negligible to moderately corrosive to buried metal pipe, and therefore, could be potentially reactive to uncoated steel, concrete, or concrete covered steel reinforcement. (NRCS, 1972)

Regulatory Guidance

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (formerly the Alquist-Priolo Special Studies Zone Act), signed into law December 1972, requires the delineation of zones along active faults in California. The purpose of the Alquist-Priolo Act is to regulate development on or near active fault traces to reduce the hazard of fault rupture and to prohibit the location of most structures for human occupancy across these traces. Cities and counties must regulate certain development projects within the zones, which includes withholding permits until geologic investigations demonstrate that development sites are not threatened by future surface displacement (CDMG, 1997). Surface fault rupture is not necessarily restricted to the area within an Alquist-Priolo Zone.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act was developed to protect the public from the effects of strong groundshaking, liquefaction, landslides, or other ground failure, and from other hazards caused by earthquakes. This act requires the State Geologist to delineate various seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within these zones. Before a development permit is granted for a site within a seismic hazard zone, a geotechnical investigation of the site has to be conducted and appropriate mitigation measures incorporated into the Project design.

California Building Code

The CBC is another name for the body of regulations known as the California Code of Regulations, Title 24, Part 2, which is a portion of the California Building Standards Code. Title 24 is assigned to the California Building Standards Commission, which, by law, is responsible for coordinating all

building standards. Under state law, all building standards must be centralized in Title 24 or they are not enforceable.

Published by the International Conference of Building Officials, the Uniform Building Code is a widely adopted model building code in the United States. The California Building Code incorporates by reference the Uniform Building Code (UBC) with necessary California amendments. About one-third of the text within the California Building Code has been tailored for California earthquake conditions. The Yolo County incorporates by reference the most recent version of the UBC and California Building Code.

Discussion

- a)
 - i) **No Impact.** The California Geological Survey's website for Alquist-Priolo Earthquake Fault Zones shows that there are no known active earthquake faults in the vicinity of the Project. Therefore, impacts resulting from rupture of a known earthquake fault are expected to have **no impact** on the Project.
 - ii,iii) **Less than Significant Impact.** Due to the distances of active fault sources from the Project, the risk of strong ground shaking is considered relatively low, when compared to other areas in California. However, regional earthquake activity has the potential to damage proposed facilities and structures. The soils encountered in the project area generally consist of inter-bedded sandy silts, silts, silty clays and clays that are poorly drained. Based on known soil and geologic characteristics, the potential for liquefaction, lateral spreading, differential settlement during the maximum credible earthquake is considered minimal. Proposed Project facilities would be designed and engineered according to Title 24 of the California Code of Regulations and all applicable Yolo County building codes and conform to Seismic Design Parameters for Seismic Zone 3 to withstand shaking from earthquakes expected to occur in Yolo County and the effects of regional seismic activity and related ground failure on project facilities would be **less-than-significant**.
 - iv) **No Impact.** The Project site is generally level and there are no hillsides in the vicinity. Because of this there is no threat of landslides to the Proposed Project and there would be **no impact**.
- b) **Less than Significant Impact.** Soils on the project site consist primarily of the Clear Lake Series which have a minimal erosion hazard (Yolo County, 2009). As discussed in Section 8c, preparation of a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the CVRWQCB's Construction General Permit Order 2009-0009-DWQ requirements is required, which include measures to stabilize soil to prevent erosion of soil into stormwater runoff. Implementation of the SWPPP would minimize the loss of topsoil and reduce erosion and impacts would be **less than significant**.

- c, d) **Less than Significant Impact.** Soils on the project site consist primarily of the Clear Lake Series which have a high shrink-swell potential and are considered to be highly expansive (Yolo County, 2009). The Project would be designed and engineered according to industry standards to protect proposed structures against risks associated with unstable soil conditions such as lateral spreading, subsidence, liquefaction, or collapse and impacts would be **less than significant**.
 - e) **No Impact.** The Proposed Project would not require septic tanks or other alternative forms of sewer services and there would be **no impact**.
-

Greenhouse Gas Emissions

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
7. GREENHOUSE GAS EMISSIONS — Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Gases that trap heat in the atmosphere are called greenhouse gases (GHGs). The accumulation of GHGs in the atmosphere has been linked to global climate change. Global climate change is a change in the average weather on earth that can be measured by wind patterns, storms, precipitation, and temperature. Although there is disagreement as to the speed of global warming and the extent of the impacts attributable to human activities, most agree that there is a link between increased emission of GHGs and long-term increases in global temperature. What GHGs have in common is that they allow sunlight to enter the atmosphere, but they also trap a portion of the outward-bound infrared radiation and warm up the air. The process is similar to the effect greenhouses have in raising their internal temperature, hence the name GHGs. Both natural processes and human activities emit GHGs.

The accumulation of GHGs in the atmosphere regulates the earth's temperature; however, emissions from human activities such as electricity production and use of motor vehicles have elevated the concentration of GHGs in the atmosphere. This accumulation of GHGs has contributed to an increase in the temperature of the earth's atmosphere and contributed to global climate change. The principal GHGs are carbon dioxide (CO₂), methane, nitrous oxide (N₂O), sulfur hexafluoride, perfluorocarbons, hydrofluorocarbons, and water vapor. CO₂ is the reference gas for climate change. To account for the warming potential of GHGs, and to combine emissions of gases with differing properties, GHG emissions are typically quantified and reported as CO₂ equivalents (CO₂e).

Potential global warming impacts in California may include, but are not limited to, loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity. While the possible outcomes and the feedback mechanisms involved are not fully understood, and much research remains to be done, the potential for substantial environmental, social, and economic consequences over the long term may be great.

Various statewide and local initiatives to reduce California's contribution to GHG emissions have raised awareness that even though the various contributors to and consequences of global climate

change are not yet fully understood, global climate change is occurring, and that there is a real potential for severe adverse environmental, social, and economic effects in the long term. The following is a summary of the various statewide and local initiatives in place in California to address GHG emissions:

- Assembly Bill 1493
- Executive Order S-3-05
- Assembly Bill 32, California Global Warming Solutions Act of 2006
- California Climate Action Registry
- Senate Bill 1368
- Executive Order S-1-07
- Senate Bill 97
- Senate Bills 1078 and 107 and Executive Order S-14-08
- Senate Bill 375
- Climate Change Scoping Plan
- OPR Proposed Amendments to the CEQA Guidelines
- ARB Draft GHG Significance Thresholds

Discussion

- a,b) As described in Section 3 – Air Quality, the Proposed Project would result in less than significant temporary emissions of GHG during the construction phase. Operation of the Proposed Project would not result in a change in the WWTP operations and project operations would not result in a substantial increase in point source GHG emissions through increased consumption of electricity or fossil fuels. Construction related GHG emissions would be intermittent and temporary and would be less than the lower reporting limit for major GHG sources established by the California Air Resources Board, which includes fossil fuel burning power plants, petroleum refineries, petrochemical plants, and food processing plants². As a result, the Proposed Project would represent a less-than-significant source of GHGs and would not conflict with the State’s ability to implement policies and plans for the purpose of reducing emissions of GHG’s. Therefore, the generation of GHG emissions would be **less than significant**.
-

² California Air Resources Board, 2008. AB 32 Climate Change Scoping Plan, December 2008.

Hazards and Hazardous Materials

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
8. HAZARDS AND HAZARDOUS MATERIALS Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Existing Environment

The California Department of Toxic Substances Control (DTSC) Hazardous Waste and Substances Sites (Cortese) List is a reporting document used by the state, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites. The Cortese List is updated at least annually, in compliance with California regulations (California Code Section 65962.5(a)(4)). The Cortese List includes federal superfund sites, state response sites, non-operating hazardous waste sites, voluntary cleanup sites, and school cleanup sites. Based on a review of the Cortese List conducted in February 2013, two listed sites are located within 0.5 miles of the Proposed Project (DTSC, 2013). Both sites are located at the Yolo County Central Landfill which is adjacent to the Proposed Project. The first is an evaluation site with no specified potential contaminants of concern. The second is a land disposal site under remediation with potential contaminants of concern including chlorinated hydrocarbons and trichloroethylene (TCE).

According to the California Department of Forestry and Fire Protection, the Proposed Project is not located within a fire hazard severity zone and is therefore at low risk for potential wildfire (CDF, 2007, 2008).

Discussion

- a,b) **Less than Significant Impact.** Construction activities associated with the Proposed Project would require the use of limited amounts of commonly used materials such as diesel, gasoline, solvents, hydraulic fluid, and grease and other compounds not considered acutely hazardous or hazardous when used in small quantities. The use, handling, and storage of hazardous materials is regulated by both the Federal Occupational Safety and Health Administration (OSHA) and the California OSHA, in addition to controls required by the SWPPP as discussed in more detail in Section 9, Hydrology and Water Quality to prevent releases of hazardous materials into stormwater. Therefore, construction and operation of the Proposed Project would result in similar or reduced routine transport, use, or disposal of hazardous materials, respectively, and impacts would result be **less than significant**.
- c) **No Impact.** The Proposed Project is located approximately 2.5 miles northeast of the nearest school, Frances Harper Junior High located at 4000 E. Covell Blvd in the City of Davis. As a result, the Proposed Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school and there would be **no impact**.
- d) **No Impact.** As described above, the Proposed Project would not be located on a hazardous materials site according to the State list of hazardous waste sites compiled pursuant to Government Code Section 65962.5 and there would be **no impact**.
- e, f) **No Impact.** The project site is not located within an airport land use plan or adjacent to a public or private airport. The nearest airport facilities include the University Airport, located approximately eight miles southwest of the project area, and the and Sacramento International Airport, located approximately eight miles northeast of the project area. Given the distance of the project site from these airports, there would be **no impact** related to aircraft related safety hazard for people working in the project area relative to airport operations.
- g) **Less than Significant Impact.** There is no adopted emergency response plan or evacuation plan for the project area. As a result, construction or operation of the Proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan and impacts would be **less than significant**.
- h) **Less than Significant Impact.** The project site is not located in an area classified by the California Department of Forestry and Fire Protection (CDF) as a wildland area. As a result, wildland fire risk in the project area is **less than significant**.
-

Hydrology and Water Quality

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
9. HYDROLOGY AND WATER QUALITY— Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, in a manner that would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river or, by other means, substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 authoritative flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Environment

Surface Water Hydrology

The Project area is located in the eastern portion of the 225,291-acre Lower Putah-Cache Hydrologic Unit, which is situated at the southern (downstream) end of the Sacramento River Basin (Sacramento Basin). The Sacramento River and its tributaries that flow through the Sacramento Valley form part of a drainage system covering over 27,000 square miles and including northern portions of the Sierra Nevada and Coastal Range. Major surface water features within the project

area include the Sacramento River, the Yolo Bypass, Cache Creek, Willow Slough, and the Willow Slough Bypass which is located south and adjacent to the project area. These features eventually flow to the Sacramento-San Joaquin Delta and subsequently into the San Francisco Bay and Pacific Ocean.

Groundwater

The project area is located within the Yolo Groundwater Subbasin. This subbasin encompasses approximately 400 square miles in the southern portion of the Sacramento Valley Groundwater Basin, primarily in Yolo County. The subbasin is bounded on the east by the Sacramento River, on the west by the Coast Range, on the north by Cache Creek, and on the south by Putah Creek.

Two main aquifers are present, an intermediate unconfined aquifer at depths of approximately 200- to 700-feet, and a deep confined aquifer at depths of approximately 700- to 2,700-feet. Groundwater, which has historically been pumped mostly from the intermediate aquifer, supplies a large portion of the water demand in Yolo County. Groundwater in Yolo County is recharged by the Sacramento River, tributaries, agricultural return flows, local precipitation, and contributions from adjacent basins. The total groundwater storage capacity for the Yolo Subbasin is approximately 6.5 Million Acre Feet (MAF) (DWR, 2003).

Flooding and Drainage

The City of Davis WWTP is located immediately north of the Willow Slough Bypass and west of the Yolo Bypass. Cache Creek and the Cache Creek Settling Basin are located north of the WWTP near Interstate 5. These waterways and facilities are part of the State-federal flood protection system in the Central Valley. Each of the waterways includes federally authorized project levees that protect the adjacent areas, including the WWTP, from flooding during large flood events.

Historically, the Yolo Bypass and Willow Slough Bypass and the associated levees have performed well during large flood events. There has never been a levee failure along these two waterways. The two largest storms of record for the Sacramento Valley near Sacramento occurred in February 1986 and January 1997. Based on the maximum 24-hour flow total of the Sacramento River, American River, and the Yolo Bypass, the 1986 storm was estimated by the U.S. Army Corps of Engineers to have had a return period of 50 to 80 years. For the 1997 storm event, the return period was estimated to be 90 to 110 years.

Cache Creek experienced a levee failure in 1983 when a levee along the south side of the creek failed just upstream of the Cache Creek Settling Basin. This resulted in flooding of mostly agricultural lands north of the City of Woodland. The Cache Creek levees were also overtopped in 1995 and 1998, but flood fighting efforts by the State of California Department of Water Resources (DWR) prevented complete levee failures. None of the major flood events along Cache Creek caused flooding near the WWTP.

The levees along the Yolo Bypass and Willow Slough Bypass were thought to provide 100-year flood protection to the WWTP and the surrounding area until June 2010. At that time, the Federal Emergency Management Agency (FEMA) published new floodplain maps that placed the WWTP in a Zone A floodplain. This floodplain zone is assigned to areas that have at least a one percent

chance of flooding in any given year, but floodplain elevations are not defined because the floodplain limits are established using approximate methods rather than a detailed analysis.

The newly defined floodplain is not the result of a new study or new data that predicts increased flows and stages in the surrounding waterways, but is the result of a new approach used by FEMA for determining the flood protection offered by levees. For this approach, FEMA now requires that levee owners provide technical documentation that demonstrates that a levee meets federal design, construction, maintenance and operation standards to provide protection from the 100-year flood. Without such documentation, FEMA assumes that a levee does not provide flood protection during a 100-year storm and the areas that are protected from flooding by the levee are mapped into the floodplain. Because the technical data for the levees protecting the WWTP is not available, the levees were de-accredited by FEMA and the area was mapped into the floodplain.

Although the floodplain water surface elevations at the WWTP site have not been established, FEMA has established water surface elevations in the Yolo Bypass and the Cache Creek Settling Basin. Due east of the WWTP, the 100-year water surface in the Yolo Bypass is approximately 30.4 feet based on the North American Vertical Datum of 1988 (NAVD88). Further north near the Cache Creek Settling Basin, the water surface elevation in the Yolo Bypass is approximately 32.7 feet (NAVD88). Along the southern levee of the Cache Creek Settling Basin, the 100-year water surface elevation varies from 40 feet to 49 feet (NAVD88). Thus, a levee failure along the south side of the Cache Creek Settling Basin would produce the most critical flooding in the vicinity of the WWTP.

Discussion

- a,f) **Less than Significant Impact.** The primary goal of the Proposed Project is to meet the effluent discharge requirements of the NPDES permit prior to discharging the effluent to Willow Slough Bypass and the Yolo Bypass, which are tributary to the Sacramento River and the Sacramento-San Joaquin Delta. Construction activities near Willow Slough and the Yolo Bypass could increase turbidity, introduce oils and grease, and affect downstream water quality constituents. However, the WWTP and construction contractors would be required to implement a Stormwater Pollution Prevention Plan (SWPPP) in compliance with the CVRFWQCB's Construction General NPDES Permit and State law. The SWPPP would include Best Management Practices (BMPs) that would be implemented throughout the construction period to prevent soil, debris, and oil/grease from entering stormwater runoff. Therefore, implementation of the requirements of the Construction General NPDES Permit and the WWTP's effluent discharge permit would prevent violation of waste discharge requirements and water quality standards, and impacts would be **less than significant**.
- b) **No Impact.** Implementation of the Proposed Project would not use or otherwise interfere with the recharge of groundwater supplies and there would be **no impact**.
- c-e) **Less than Significant Impact.** Construction and operation of the Proposed Project would result in new facilities for tertiary treatment of wastewater within the existing footprint of the City of Davis WWTP. Construction and operation of the proposed facilities would not alter drainage patterns on the project site or otherwise increase stormwater runoff

significantly enough to affect erosion, siltation, flood capacity, and stormwater quality within receiving waters in Willow Slough and Yolo Bypass. Therefore, the Project would not substantially alter existing drainage or run-off patterns, quantities, or quality and would be **less than significant**.

- g) **No Impact.** The Project would not place houses, within a 100-year flood plain that would redirect or impede flood flows. **No impact** is expected.
- h,i) **Less than Significant Impact.** As described in the project description, it has been determined that the City of Davis must implement flood protection measures at the WWTP to comply with the requirements of the NPDES permit to mitigate for potential flood events. Three potential options for providing flood protection were considered:
- Construct a Floodwall or Levee around the WWTP
 - Improve Existing Levees
 - Rely on CVFPP and Lower Cache Creek Improvements

Construction of a floodwall to protect the WWTP was determined to be the quickest and most cost effective way to mitigate for potentially significant flooding impacts. For the purposes of planning WWTP flood protection, the design flood elevation is conservatively assumed to be equal to the 200-year water surface elevation of 33.15 feet (NAVD88) with the assumption that the 100-year flood water surface elevation would be slightly lower than this elevation. While the flood wall and/or levee improvements would redirect flood flows during a flood event, flows would be directed to adjacent open space and agricultural areas and would not impact structures or population centers. Therefore, construction of the flood wall and/or levee improvements as described in the project description would mitigate impacts associated with flooding to **less than significant**.

- j) **No Impact.** Since the Project is not located near the ocean or any large water bodies, risks associated with seiche or tsunami are considered low. In addition, the Project site is essentially level, with minimal hazards from mudflows. Therefore, **no impact** would occur.
-

Land Use, Planning, and Policies

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
10. LAND USE AND LAND USE PLANNING— Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Environment

The project site is located within unincorporated Yolo County, within the sphere of influence of the City of Davis. Because these lands are legally under the County's jurisdiction, they are also included in the Yolo County General Plan and given land use designations. Until SOI areas are annexed into a city's boundaries, the controlling land use designations for purposes of development are those of the County (Yolo County, 2009). The project site is designated as Public and Quasi-Public (PQ) by the Yolo County General Plan which allows for public/governmental offices, places of worship, schools, libraries and other civic uses, public airports (including related visitor services), infrastructure including wastewater treatment facilities, municipal wells, landfills and storm water detention basins, and agricultural buffer areas. Existing adjacent uses include agricultural lands and the YCCL. There is one rural residential house located approximately 2,300 feet southwest of the project site. The nearest community is the City of Davis, located approximately 2.5 miles southwest of the project site.

Discussion

- a,b) **No Impact.** The Proposed Project would consist of new and replacement treatment facilities, a floodwall located within the existing WWTP property, and a discharge pipeline within the existing PQ General Plan land use designation. As a result, construction and operation of the Proposed Project is consistent with local land use plans and policies related to the PQ General Plan land use designation. As a result, project facilities would not divide an established community or neighborhood and **no impact** would occur.
- c) **No Impact.** As described above under Section 4, Biological Resources, the Project is located within the boundaries of the Yolo County Natural Heritage Program Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) area. Although not adopted, the Yolo County Natural Heritage Program NCCP/HCP EIR will address the Proposed Project's potential consistency with likely provisions of the NCCP/HCP as currently envisioned.

According to draft documents on the Yolo County Natural Heritage Program website, the WWTP would be covered under existing land uses within the HCP area. Because the Proposed Project would not result in expansion of existing service that would require construction of new facilities beyond the existing WWTP property boundary, the Proposed Project would not conflict with the NCCP/HCP and there would be **no impact**.

Mineral Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
11. MINERAL RESOURCES—Would the project:				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Environment

According to the Yolo County 2030 General Plan EIR, the project area is outside of a Mineral Resource Zone (MRZ) as mapped by the California Department of Conservation (CDC) (Yolo County, 2009). However, the CDC has identified approximately 25 gas fields located within Yolo County, with one or two in the vicinity of the project site.

Discussion

- a, b) **No Impact.** Construction and operation of the Proposed Project would not result in facilities beyond the existing WWTP property boundary and the Davis Restoration Wetlands. Therefore, the Project would not result in a loss of availability of existing natural gas resources and there would be **no impact**.

Noise

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
12. NOISE—Would the project:				
a) Result in 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Environment

Temporary noise impacts associated with construction are the primary concern in evaluating noise impacts for the Proposed Project. During normal operation, noise from maintenance vehicles that occasionally access the project area would not differ from existing conditions and will not be discussed further.

Temporary impacts during construction are considered significant if they would substantially interfere with affected land uses. Substantial interference could result from a combination of factors including: the generation of noise levels substantially greater than existing ambient noise levels; construction efforts lasting over long periods of time; or construction activities that would affect noise-sensitive uses during the nighttime. Because Yolo County does not have a noise ordinance, the following impact criteria is used. For assessment of temporary construction noise impacts, “substantially greater” means more than 3 dBA (hourly Leq, DNL, or CNEL)³ resulting in noise levels above 60 dB, which are considered “normally acceptable” for unshielded residential development. Noise levels from 60 to 70 dB fall within the “conditionally unacceptable” range, and those in the 70 to 75 dB range are considered “normally unacceptable.”

³ Leq is the equivalent or energy-averaged sound level. Ldn is the Day/Night Average Sound Level. It is similar to CNEL but with no evening weighting. CNEL is the Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging

The project area is rural in character and existing noise sources in the immediate vicinity of the project site are primarily limited to vehicular traffic on nearby roadways, noise associated with the operations uses at the YCCL and the WWTP. The nearest sensitive receptor, a rural residential house, is located approximately 2,300 feet southwest of the project site.

- a ,d) **Less than Significant Impact.** Post-construction, operational activities would generally be the same as pre-construction. Noise generated from the WWTP staff associated with occasional vehicle travel to conduct routine maintenance activities including repairing, maintaining and or replacing facilities similar to existing conditions.

Construction activity would be located approximately 2,300 feet northeast of the nearest sensitive receptor an existing single-family rural residential home. Noise from construction activity generally attenuates (decreases) at a rate of 6 to 7.5 dBA per doubling of distance. Conservatively assuming an attenuation of 6 dBA per doubling of distance, the loudest construction noise event would be 89 dBA at 50 feet, 83 dBA at 100 feet, 77 dBA at 200 feet, and so on (See **Table 2-8 and 2-9**). Construction noise levels would attenuate by more than 30 dBA at the nearest sensitive receptor, and not exceed 60 dBA. These predicted noise levels fall within the “Normally Acceptable” range for temporary construction impacts and are considered to be **less than significant**.

- b) **Less than Significant Impact.** As shown in **Table 2-10**, use of heavy equipment (e.g., a large bulldozer) generates vibration levels of 0.031 PPV or 81 RMS at a distance of 50 feet. Sensitive receptors would be located approximately 2,300 feet southwest of the construction area would not exceed the potential building damage threshold of 0.5 PPV. Ground-borne vibration attenuates quickly with distance and the RMS level from heavy equipment would be approximately 79 RMS at 60 feet. At 2,300 feet, vibration would be indiscernible and would be less-than-significant.
- c) **No Impact.** Post-construction, operational activities would generally be the same as pre-construction. No substantial new noise generating equipment would be included as part of project operations that would affect the nearest sensitive receptor approximately 2,300 feet south west of the Proposed Project. Therefore there would be **no impact** associated with a permanent increase in ambient noise levels.
- e-f) **No Impact.** The Proposed Project does not involve the development of noise-sensitive land uses within the vicinity of an airstrip or propose any changes to existing land uses. Thus, implementation of the Proposed Project would not expose people to excessive aircraft noise. There would be **no impact**.

**TABLE 2-8
TYPICAL CONSTRUCTION NOISE LEVELS**

Construction Phase	Noise Level (dBA, Leq) ^a
Ground Clearing	84
Excavation	89
Foundations	78
Erection	85
Finishing	89

a Average noise levels correspond to a distance of 50 feet from the noisiest piece of equipment associated with a given phase of construction and 200 feet from the rest of the equipment associated with that phase.

SOURCE: Bolt, Beranek, and Newman, *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*, 1971.

**TABLE 2-9
TYPICAL NOISE LEVELS GENERATED BY
CONSTRUCTION EQUIPMENT**

Construction Equipment	Noise Level (dBA, Leq at 50 feet)
Dump Truck	88
Portable Air Compressor	81
Concrete Mixer (Truck)	85
Scraper	88
Jack Hammer	88
Dozer	87
Paver	89
Generator	78
Front Loader	79
Scraper	88
Grader	85
Backhoe	85

SOURCE: Cunniff (1977); U.S. Environmental Protection Agency (1971)

**TABLE 2-10
VIBRATION VELOCITIES FOR CONSTRUCTION EQUIPMENT**

Equipment	PPV at 50 ft (inches/second) ^a	RMS at 50 ft (Vdb) ^b
Large bulldozer	0.031	81
Caisson drilling	0.031	81
Loaded trucks	0.027	80

a. Fragile buildings can be exposed to ground-borne vibration levels of 0.5 PPV without experiencing structural damage.

b. The human annoyance response level is 80 RMS.

SOURCE: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, April 1995.

Population and Housing

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
13. POPULATION AND HOUSING— Would the project:				
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

As described above, the project site is located within unincorporated Yolo County but within the sphere of influence of the City of Davis. There are no existing or planned communities or significant housing and population centers on or adjacent to the project site (Yolo County, 2009). The nearest community is the City of Davis, which is currently served by the existing WWTP, is located approximately 2.5 miles southwest of the project site.

Discussion

- a) **Less than Significant Impact.** The Project would not directly induce population growth or require the expansion of new infrastructure or development to accommodate growth. Modifications to the existing WWTP would only serve to improve the treatment quality and would not increase treatment capacity and remove an obstacle to growth. Construction and operation of the Proposed Project is not anticipated to generate new employment such that it would necessitate the need for the construction of additional housing. It is anticipated that approximately 100 new temporary construction jobs could be created as a result of the Proposed Project. However, it is expected that the existing unemployed labor force within Yolo County, approximately 12,200 individuals, would be utilized to support this temporary construction employment (EDD, 2012). The existing housing vacancy within Yolo County, approximately 4,182 units, would support any increased demand for housing supply generated by temporary and permanent job creation (U.S. Census, 2010). Operation of the Proposed Project will not increase the need for additional staff to maintain and monitor the proposed treatment facilities. As a result, the Proposed Project would result in a **less than significant impact** related to growth inducement.

- b,c) **No Impact.** The Project would not require the demolition of existing housing, thereby necessitating the construction of housing elsewhere. Therefore, there would be **no impact** associated with the displacement of housing or people.
-

Public Services

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
14. PUBLIC SERVICES— Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of, or the 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 following public services:				
i) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Law Enforcement

The Yolo County Sheriff's Office and the California Highway Patrol provide law enforcement services to the unincorporated lands within the project area. Given the rural nature of the project area, calls to the project site for law enforcement are relatively low.

Fire Protection and Medical Services

The project area would be served by fire stations located within the City of Woodland, Davis, and West Sacramento, and the UC Davis campus. Emergency medical services are also provided to the project area by the City of Woodland Fire Department as well as Woodland Memorial Hospital.

Schools

There are no schools within the vicinity of the project area.

Parks

Refer to Section 15, Recreation, for a discussion of parks and recreational facilities in the project area.

Discussion

- a) **Less than Significant Impact.** As described above under Section 13, Population and Housing, the Proposed Project would not result in population growth that would require development of new governmental facilities. As further described, temporary construction jobs could be created as a result of the Proposed Project; however, it is expected that the existing unemployed labor force and housing supply within Yolo County would be utilized to support temporary employment generated. Therefore, the Proposed Project would not generate additional demand for public services and impacts would be **less than significant**.
-

Recreation

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
15. RECREATION—Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Environment

The nearest recreational facility to the project site is the City of Davis Restoration Wetlands. The 400 acre Davis Wetlands is part of the City WWTP and provides wildlife habitat, flood control, wastewater and stormwater treatment, recreation, and environmental learning opportunities. The wetlands are generally open 7 days a week from 7 am to 1pm. From September 1st through February 15th the wetlands are open on Mondays only. There are no other recreational areas or uses on or adjacent to the project site.

Discussion

- a) **Less than Significant Impact.** As described above under Section 13, Population and Housing, the Project is not expected to result in an increase in population nor would it contribute to an increased use of recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. Although temporary construction jobs could be created as a result of the Proposed Project, it is expected that the existing unemployed labor force and housing supply within Yolo County would support temporary employment generated by the Project. Additionally, construction and operation of the Proposed Project would not permanently interfere with access to the Davis wetlands. Therefore, impacts are expected to be **less than significant** on recreational resources.
- b) **No Impact.** The Project does not include or require the construction of new recreational facilities. Further, as discussed above, the Project is not expected to increase demand for recreational facilities as a result of population growth such that construction or expansion of those facilities is necessary and there would be **no impact**.

Transportation and Traffic

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
16. TRANSPORTATION AND TRAFFIC— Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Environment

Yolo County is primarily a rural area with people and businesses concentrated in several small to medium-sized communities, including the City of Davis, the City of Woodland, and the City of West Sacramento. The roadway network that would be affected by the Proposed Project is located in southern Yolo County, east of the City of Davis. The transportation system in the region is composed of an interconnected network of state, county, and city roadways. There are no local transit systems or delineated pedestrian and bicycle facilities in the vicinity of the project area.

Roadway Network

Regional access to the project area is provided primarily by I-5 and Interstate 80 (I-80). I-5 is located north of the project area and serves as a major route connecting southern California to the Pacific Northwest. I-80 is also located immediately south of the project area and serves as a major route connecting the west coast with the rest of the United States. Regional access is also provided by State Route (SR) 113, a four-lane freeway, with two lanes in both directions, in the vicinity of the

project area and provides primary access between Cities of Davis and Woodland. County Road 105 and County Road 28H provide direct access to the YCCL and to the project site.

Discussion

- a-b) **Less than Significant Impact.** Construction activities associated with the proposed improvements would be conducted within established off-street work areas and would not involve construction within the right-of-way of any public roadways. Staging areas would be within the off-street work areas. No temporary road closures or detours would be required during Proposed Project construction.

Construction traffic associated with vehicle trips by construction workers and construction vehicles would result in short-term traffic volume increases on roadways near the project site and on access routes for 36 months. Construction workers would generally travel to and from the project site before and after their work shift. (Construction activities are scheduled to occur between 7:00 a.m. and 5:00 p.m.).

The exact number of construction-related vehicles traveling to and from the work area would vary on a daily basis depending on the planned activity and materials needs. The maximum number of construction vehicles (delivery and haul trucks and construction worker vehicles) traveling to and from the site would be approximately 20 round trips per day during the construction period. The largest component of construction-generated truck trips would be related to the delivery of equipment and material to the project site.

The addition of construction vehicle traffic to the existing roadway volumes could result in increased vehicle congestion and delay. Construction truck traffic would temporarily affect roadway conditions due to the slower travel speeds and larger turning radii of trucks. Construction traffic impacts would be most noticeable in the immediate vicinity of the project site. However, construction-generated traffic would be temporary and would not result in any long-term degradation in level of service (LOS) on any local roadways. The Proposed Project would not contribute any new permanent or long-term vehicle trips to any public roadways. This impact would be **less than significant**.

- c) **No Impact.** The Proposed Project would not involve aircraft, nor would the project structures intrude into aircraft flight paths or air traffic spaces. The Proposed Project would have no impact on air traffic patterns.
- d) **Less than Significant Impact with Mitigation.** The Proposed Project would not permanently change the existing or planned transportation network in the vicinity of the project site and would not include the implementation of any new design features that could increase the potential for traffic safety hazards. Because construction trucks carrying construction equipment and materials, excavated soil and fill material would share the area roadways with other vehicles, the potential exists for an increase in traffic safety hazards during construction of the Proposed Project. Implementation of the traffic control plan described in **Mitigation Measure TRAFFIC-1** would reduce traffic-related safety hazards to a **less-than-significant** level.

Mitigation Measure TRAFFIC-1: The City will require the contractor(s) to prepare a Traffic Control Plan in accordance with Caltrans and other professional engineering standards prior to construction. The Traffic Control Plan could, but is not limited to, include the following requirements:

- Emergency services access to local land uses shall be maintained at all times for the duration of construction activities. Local emergency service providers shall be informed of proposed construction activities and identified haul routes.
- Access for local land uses including residential driveways, commercial properties, and agricultural lands during construction activities shall be maintained.
- Roadside safety protocols shall be complied with, so as to reduce the risk of accident.
- A telephone resource shall be arranged to address public questions and complaints during project construction.

- e) **Less than Significant Impact.** Construction activities associated with project improvements would be conducted within the established off-street work areas and not within public roadways outside of the work areas. No temporary road closures or detours would be required during project construction. While there would be short-term, intermittent increases in vehicle trips in the project area, construction traffic would not prevent emergency vehicles from accessing the project site or adjacent land uses, although it could potentially create a minor slowdown in the response time of an emergency vehicle. Therefore, this impact would be **less than significant**.
- f) **No Impact.** The Project does not include the development of alternative forms of transportation, or result in an increase in population that would create conditions that conflict with adopted policies supporting alternative transportation and there would be **no impact**.
-

Utilities and Service Systems

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
17. UTILITIES AND SERVICE SYSTEMS—Would the project:				
a) Conflict with wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Require new or expanded water supply resources or entitlements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider that would serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Existing Conditions

Storm Drainage

Dedicated storm drains are provided on the project site to service the City WWTP. The storm drainage system is generally connected to flood control canals and channels that drain into the Willow Slough Bypass, Yolo Bypass, and the Sacramento River or infiltrate into groundwater.

Flood Control

Numerous special districts have been established in the Project area that are responsible for flood control. Section 9, Hydrology and Water Quality, provides additional information about flood control in the Project area.

Solid Waste Disposal

The Yolo County Central Landfill (YCCL) is a 722-acre facility is a Class III solid waste landfill which provides comprehensive solid waste and recycling services, including municipal solid waste, recycling, salvaging, household hazardous waste, and business hazardous waste. At the current waste disposal rate (assuming a diversion rate of 70 percent, no large increase of waste from outside the county, and future waste cells operated as bioreactors) the landfill's closure date

is estimated as January 1, 2081, for a future operational life of about 72 years (Yolo County, 2009).

Water Services

Water service is provided on-site by dedicated wells to serve the City WWTP.

Wastewater

Wastewater collection is provided by the existing and proposed facilities on the project site (City of Davis WWTP).

Utilities

Electricity and gas are provided to the project site by Pacific Gas and Electric Company (PG&E).

Discussion

- a) **No Impact.** The development of the Proposed Project is in response to the City's current National Pollutant Discharge Elimination System (NPDES) Permit issued by the Central Valley Regional Water Quality Control Board (CVRWQCB). To maintain its surface water discharge, the Permit requires the City to meet new stringent effluent limitations and in response, the City has determined it necessary to improve the treated effluent quality to tertiary treatment standards prior to discharge in Willow Slough. The Project would operate to conform to CVRWQCB standards in the WWTP's NPDES Permit and, therefore result in **no impact**.
- b) **No Impact.** The Proposed Project would construct new wastewater infrastructure to meet NPDES Permit requirements for effluent discharge to Willow Slough. Therefore, the Proposed Project would not require additional wastewater services and there would be **no impact**.
- c) **No Impact.** The Proposed Project would not require the construction of new on-site drainage facilities to support the Project and there would be **no impact**.
- d) **No Impact.** The Proposed Project involves treatment of wastewater and would not require new or expanded water supplies. Therefore there would be **no impact** to water supply resources.
- e) **No Impact.** The Proposed Project is a wastewater treatment and disposal project designed to meet effluent discharge requirement in the City's NPDES Permit. The Proposed Project would not require new or expanded wastewater treatment facilities beyond those planned with this Project. Further, the Proposed Project would not increase the WWTP treatment capacity and would not affect its ability to meet existing service commitments. Therefore, there would be **no impact** associated with the provision of wastewater service.

- f, g) **Less than Significant.** Construction of the Proposed Project would involve site preparation and grading. Construction activities may generate waste materials, including vegetation, asphalt, concrete, and other nonhazardous materials, that could be recycled and/or disposed of in a landfill. Other waste materials related to construction of the Proposed Project would not be generated in substantial amounts. Proposed Project operations would generate sludge and trash waste streams consistent with existing operations. Construction and operation waste would be disposed of at the Yolo County Central Landfill (YCCL) which is directly adjacent to the project site. The YCCL has a future operation life of approximately 72 years with an expected closure date of January 1, 2081 (Yolo County, 2009). Capacity within the YCCL is therefore sufficient to meet project waste disposal needs, and no significant impact to landfill capacity is anticipated. Therefore, implementation of the Proposed Project would not substantially reduce the capacity/life of the YCCL and impacts associated with waste disposal would be **less than significant**.
-

Mandatory Findings of Significance

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
18. MANDATORY FINDINGS OF SIGNIFICANCE — Would the project:				
a) 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have impacts that would be 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.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) **Less than Significant with Mitigation.** As discussed the Air Quality, Biological Resources, Cultural Resources, and the Transportation and Traffic, sections of this Initial Study, the Proposed Project would result in potentially significant temporary impacts as a result of construction and would have the potential to degrade the quality of the environment. However, adoption and implementation of mitigation measures described in this Initial Study would reduce these individual impacts to **less than significant** levels.
- b) **Less than Significant with Mitigation.** The impacts of the Proposed Project are individually limited and not considered "cumulatively considerable". Although incremental changes certain areas can be expected as a result of the Proposed Project, all environmental impacts that could occur as a result of the Proposed Project would be reduced to a **less than significant** level through implementation of the mitigation measures recommended in this Initial Study for the following resource areas: Air Quality, Biological Resources, Cultural Resources, and the Transportation and Traffic.
- c) **Less than Significant with Mitigation.** Temporary impacts to human beings through degradation of local air quality could occur during construction. However, with implementation of mitigation measures provided in the Air Quality sections, these temporary impacts would be **less-than-significant**.

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Appendix B

Notice of Completion



Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
 For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH# **2013052032**

Project Title: City of Davis Wastewater Treatment Plant Secondary and Tertiary Improvements Project

Lead Agency: City of Davis Contact Person: Michael Lindquist
 Mailing Address: 1717 Fifth Street Phone: 530-757-5686
 City: Davis Zip: 95616 County: Yolo

Project Location: County: Yolo City/Nearest Community: Davis
 Cross Streets: County Road 28H and County Road 105 Zip Code: 95618

Longitude/Latitude (degrees, minutes and seconds): 38 ° 35 ' 29.5 " N / 121 ° 40 ' 00.1 " W Total Acres: 164.42
 Assessor's Parcel No.: _____ Section: 29,33,34 Twp.: 9N Range: 3E Base: Mt. Diablo
 Within 2 Miles: State Hwy #: N/A Waterways: Willow Slough Bypass
 Airports: N/A Railways: _____ Schools: N/A

Document Type:

CEQA: ☐ NOP ☐ Draft EIR NEPA: ☐ NOI Other: ☐ Joint Document
☐ Early Cons ☐ Supplement/Subsequent EIR ☐ EA ☐ Final Document
☐ Neg Dec (Prior SCH No.) _____ ☐ Draft EIS ☐ Other: _____
☒ Mit Neg Dec Other: _____ FONSI _____

Local Action Type:

☐ General Plan Update ☐ Specific Plan ☐ Rezone ☐ Annexation
☐ General Plan Amendment ☐ Master Plan ☐ Prezone ☐ Redevelopment
☐ General Plan Element ☐ Planned Unit Development ☐ Use Permit ☐ Coastal Permit
☐ Community Plan ☐ Site Plan ☐ Land Division (Subdivision, etc.) ☒ Other: Utility Project

Development Type:

☐ Residential: Units _____ Acres _____ ☐ Transportation: Type _____
☐ Office: Sq.ft. _____ Acres _____ Employees _____ ☐ Mining: Mineral _____
☐ Commercial: Sq.ft. _____ Acres _____ Employees _____ ☐ Power: Type _____ MW _____
☐ Industrial: Sq.ft. _____ Acres _____ Employees _____ ☒ Waste Treatment: Type Wastewater MGD 6
☐ Educational: _____ ☐ Hazardous Waste: Type _____
☐ Recreational: _____ ☐ Other: _____
☐ Water Facilities: Type _____ MGD _____

Project Issues Discussed in Document:

☒ Aesthetic/Visual ☐ Fiscal ☒ Recreation/Parks ☒ Vegetation
☒ Agricultural Land ☒ Flood Plain/Flooding ☒ Schools/Universities ☒ Water Quality
☒ Air Quality ☒ Forest Land/Fire Hazard ☒ Septic Systems ☒ Water Supply/Groundwater
☒ Archeological/Historical ☒ Geologic/Seismic ☐ Sewer Capacity ☒ Wetland/Riparian
☒ Biological Resources ☒ Minerals ☒ Soil Erosion/Compaction/Grading ☒ Growth Inducement
☐ Coastal Zone ☒ Noise ☒ Solid Waste ☒ Land Use
☒ Drainage/Absorption ☒ Population/Housing Balance ☒ Toxic/Hazardous ☒ Cumulative Effects
☒ Economic/Jobs ☒ Public Services/Facilities ☒ Traffic/Circulation ☐ Other: _____

Present Land Use/Zoning/General Plan Designation:

Wastewater Treatment/ Agriculture, Agriculture Preserve / Agriculture, Open Space

Project Description: (please use a separate page if necessary)

The Project would include construction and installation of new WWTP treatment infrastructure, a flood wall and/or levee improvements, and a treated wastewater discharge pipeline. Use of existing ponds will change from treatment to storage, and the overland flow system will be decommissioned as part of the treatment process. An effluent pipeline will be constructed to convey treated water to the City's existing point of discharge. Installation of these new facilities will enhance the level of treatment to meet new National Pollutant Discharge Elimination System permit requirements. Elements of the Project will have an initial average dry weather flow rating (ADWF) of 6.0 million gallons per day (mgd), and therefore will not increase treatment capacity at the WWTP beyond its current capacity of 7.5 mgd ADWF.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with an "X".
If you have already sent your document to the agency please denote that with an "S".

<input checked="" type="checkbox"/> Air Resources Board	<input checked="" type="checkbox"/> Office of Historic Preservation
<input type="checkbox"/> Boating & Waterways, Department of	<input type="checkbox"/> Office of Public School Construction
<input type="checkbox"/> California Emergency Management Agency	<input type="checkbox"/> Parks & Recreation, Department of
<input type="checkbox"/> California Highway Patrol	<input type="checkbox"/> Pesticide Regulation, Department of
<input checked="" type="checkbox"/> Caltrans District #3	<input type="checkbox"/> Public Utilities Commission
<input type="checkbox"/> Caltrans Division of Aeronautics	<input checked="" type="checkbox"/> Regional WQCB #5
<input type="checkbox"/> Caltrans Planning	<input type="checkbox"/> Resources Agency
<input checked="" type="checkbox"/> Central Valley Flood Protection Board	<input type="checkbox"/> Resources Recycling and Recovery, Department of
<input type="checkbox"/> Coachella Valley Mtns. Conservancy	<input type="checkbox"/> S.F. Bay Conservation & Development Comm.
<input type="checkbox"/> Coastal Commission	<input type="checkbox"/> San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
<input type="checkbox"/> Colorado River Board	<input type="checkbox"/> San Joaquin River Conservancy
<input checked="" type="checkbox"/> Conservation, Department of	<input type="checkbox"/> Santa Monica Mtns. Conservancy
<input type="checkbox"/> Corrections, Department of	<input type="checkbox"/> State Lands Commission
<input checked="" type="checkbox"/> Delta Protection Commission	<input checked="" type="checkbox"/> SWRCB: Clean Water Grants
<input type="checkbox"/> Education, Department of	<input checked="" type="checkbox"/> SWRCB: Water Quality
<input type="checkbox"/> Energy Commission	<input checked="" type="checkbox"/> SWRCB: Water Rights
<input checked="" type="checkbox"/> Fish & Game Region #2	<input type="checkbox"/> Tahoe Regional Planning Agency
<input type="checkbox"/> Food & Agriculture, Department of	<input type="checkbox"/> Toxic Substances Control, Department of
<input type="checkbox"/> Forestry and Fire Protection, Department of	<input type="checkbox"/> Water Resources, Department of
<input type="checkbox"/> General Services, Department of	
<input checked="" type="checkbox"/> Health Services, Department of	Other: _____
<input type="checkbox"/> Housing & Community Development	Other: _____
<input checked="" type="checkbox"/> Native American Heritage Commission	

Local Public Review Period (to be filled in by lead agency)

Starting Date May 10, 2013 Ending Date June 10, 2013

Lead Agency (Complete if applicable):

Consulting Firm: <u>ESA</u>	Applicant: <u>City of Davis Public Works Department</u>
Address: <u>2600 Capitol Ave, Ste 200</u>	Address: <u>1717 Fifth Street</u>
City/State/Zip: <u>Sacramento, CA 95816</u>	City/State/Zip: <u>Davis, California 95616</u>
Contact: <u>Paul Garcia</u>	Phone: <u>530-757-5686</u>
Phone: <u>916-564-4500</u>	

Signature of Lead Agency Representative: _____

Date: 5-10-13

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

Appendix C

Public Notice of Availability



RECEIVED

MAY 10 2013

YOLo COUNTY
CLERK/RECORDER

PUBLIC NOTICE AND NOTICE OF INTENT TO ADOPT MITIGATED NEGATIVE DECLARATION

To: Responsible Agencies and Interested Parties
Subject: Notice of Availability, Draft Initial Study/Mitigated Negative Declaration for the City of Davis
Wastewater Treatment Plant Secondary and Tertiary Improvements Project
Date: April 10, 2013

The City of Davis (City) has directed the preparation of an Initial Study/Mitigated Negative Declaration (IS/MND) for the City of Davis Wastewater Treatment Plant (WWTP) Secondary and Tertiary Improvements Project (Project), in compliance with the California Environmental Quality Act (CEQA) and State CEQA Guidelines. The City is the lead agency for the Project under CEQA.

Project Location: The Project is located at the existing City of Davis WWTP, at 45400 County Road 28H in eastern Yolo County, east of the City limits. The surrounding project area is comprised primarily of agricultural land.

Project Description: The Project would include construction and installation of new WWTP treatment infrastructure, a flood wall and/or levee improvements, and a treated wastewater discharge pipeline. Installation of these new facilities will only serve to replace existing facilities and enhance the level of treatment to meet new National Pollutant Discharge Elimination System permit requirements and will not increase treatment capacity at the WWTP beyond its current existing capacity.

Summary of Significant Environmental Effects: As analyzed in the IS/MND, implementation of the Project would have less than significant environmental impacts. The following environmental resource areas include mitigation to reduce impacts to a less-than-significant level: air quality, biological resources, cultural resources, and transportation and traffic.

Public Review and Comment: A 30-day public review period begins on May 10, 2013 and ends on June 10, 2013. The IS/MND may be viewed at the Mary Stephens Davis Branch Library at 315 E. 14th Street in Davis, California. Electronic copies of the environmental document can be requested from the contact information below. Anyone interested in this matter is invited to comment on the document. Written comments must be received by mail (or e-mail) at the following address, by no later than 5:00 p.m. on **June 10, 2013**:

Paul Garcia
c/o, Environmental Science Associates
2600 Capitol Avenue, Suite 200
Sacramento California 95816
City of Davis WWTP Improvement Project
Phone: (916) 564-4500
Email: pgarcia@esassoc.com

Appendix D

May 10, 2011 Davis
Enterprise Public Notice



(2015.5 C.C.P.)

Filing Stamp

STATE OF CALIFORNIA
County of Yolo

I am a citizen of the United States
and a resident of the county aforesaid.
I am over the age of eighteen years
and not a party to or interested
in the above-entitled matter.
I am the principal clerk of the
printer of

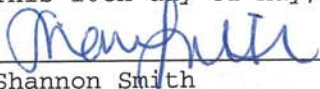
THE DAVIS ENTERPRISE
315 G STREET

printed and published Tuesday through
Friday and Sunday in the city of Davis,
County of Yolo, and which newspaper has
been adjudged a newspaper of general
circulation by the Superior Court
of the County of Yolo, State of
California, under the date of
July 14, 1952, Case Number 12680.
That the notice, of which the annexed
is a printed copy (set in type not
smaller than non-pareil), has been
issue of said newspaper and not in
any supplement thereof on the
following dates to-wit:

May 10
All in the year(s) 2013

I certify (or declare) under penalty
of perjury that the foregoing
is true and correct.

Dated at Davis, California,
This 10th day of May, 2013


Shannon Smith
Legal Advertising Clerk

Proof of Publication
DE205250
Public Notice

Public Notices	Public Notices
PUBLIC NOTICE AND NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION	
<p>The City of Davis (City) has directed the preparation of an Initial Study/Mitigated Negative Declaration (IS/MND) for the City of Davis Wastewater Treatment Plant (WWTP) Secondary and Tertiary Improvements Project (Project), in compliance with the California Environmental Quality Act (CEQA) and State CEQA Guidelines. The City is the lead agency for the Project under CEQA.</p>	
<p>Project Location: The Project is located at the existing City of Davis WWTP, at 45400 County Road 28H in eastern Yolo County, east of the City limits. The surrounding project area is comprised primarily of agricultural land.</p>	
<p>Project Description: The Project would include construction and installation of new WWTP treatment infrastructure, a flood wall and/or levee improvements, and a treated wastewater discharge pipeline. Use of the existing ponds will change from treatment to storage, and the overland flow system will be decommissioned as part of the treatment process. An effluent pipeline will be constructed to convey treated water around existing restoration wetlands to the City's existing point of discharge. Installation of these new facilities will only serve to replace existing facilities and enhance the level of treatment to meet new National Pollutant Discharge Elimination System permit requirements. Elements of the Project will have an initial average dry weather flow rating (ADWF) of 6.0 million gallons per day (mgd), and therefore will not increase treatment capacity at the WWTP beyond its current capacity of 7.5 mgd ADWF.</p>	
<p>Summary of Significant Environmental Effects: As analyzed in the IS/MND, implementation of the Project would have less than significant environmental impacts. The following environmental resource areas include mitigation to reduce impacts to a less-than-significant level: air quality, biological resources, cultural resources, and transportation and traffic.</p>	
<p>Public Review and Comment: A 30-day public review period begins on May 10, 2013.</p>	

Appendix E

Final Mitigation Monitoring and Reporting Program



MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Implementing Responsibility	Monitoring Responsibility	Timing	Verification of Compliance (Initials and Date)
<p>Air Quality</p> <p>AIR-1: During construction activities, the City shall require the construction contractor(s) to implement a dust abatement program that includes, but is not limited to, the following YSAQMD-recommended measures:</p> <p>All new construction projects shall incorporate the standard dust suppression requirements recommended by the YSAQMD, including:</p> <ul style="list-style-type: none"> • Nontoxic soil stabilizers according to manufacturer's specifications shall be applied to all inactive construction areas (previously graded areas inactive for ten days or more). • Ground cover shall be reestablished in disturbed areas quickly. • Active construction sites shall be watered at least three times daily to avoid visible dust plumes. • Paving, applying water three times daily, or applying (non-toxic) soil stabilizers shall occur on all unpaved access roads, parking areas and staging areas at construction sites. • Enclosing, covering, watering daily, or applying non-toxic soil binders to exposed stockpiles (dirt, sand, etc.) shall occur. • A speed limit of 15 MPH for equipment and vehicles operated on unpaved areas shall be enforced. • All vehicles hauling dirt, sand, soil, or other loose materials shall be covered or shall be maintained at least two feet of freeboard. • Streets shall be swept at the end of the day if visible soil material is carried onto adjacent public paved roads. • All new construction projects shall incorporate the standard NOx reduction requirements recommended by the YSAQMD, including: • Construction equipment exhaust emissions shall not exceed District Rule 2-11 Visible Emission limitations. • Construction equipment shall minimize idling time to 10 minutes or less. • The prime contractor shall submit to the City a comprehensive inventory (i.e., make, model, year, emission rating) of all the heavy-duty off-road equipment (50 horsepower or greater) that will be used an aggregate of 40 or more hours for the construction project. • City personnel, with assistance from the California Air Resources Board (CARB), will conduct initial Visible Emission Evaluations (VEE) of all heavy-duty equipment on the inventory list. • An enforcement plan shall be established to weekly evaluate project-related on- and off-road heavy-duty vehicle engine emission opacities, using standards as defined in California Code of Regulations, Title 13, Sections 2180 - 2194. 	Construction contractor	City	During construction activities	

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Implementing Responsibility	Monitoring Responsibility	Timing	Verification of Compliance (Initials and Date)
<ul style="list-style-type: none"> An Environmental Coordinator, CARB-certified to perform Visible Emissions Evaluations (VEE) VEE shall routinely evaluate project related off-road and heavy duty on-road equipment emissions for compliance with this requirement. Operators of vehicles and equipment found to exceed opacity limits will be notified and the equipment must be repaired within 72 hours. <p>Construction contracts shall stipulate that at least 20% of the heavy-duty off-road equipment included in the inventory be powered by CARB certified off-road engines, as follows:</p> <ul style="list-style-type: none"> 175 hp - 750 hp 1996 and newer engines 100 hp - 174 hp 1997 and newer engines 50 hp- 99 hp 1998 and newer engines <p>In lieu of or in addition to this requirement, the City may use other measures to reduce particulate matter and nitrogen oxide emissions from project construction through the use of emulsified diesel fuel and or particulate matter traps. These alternative measures, if proposed, shall be developed in consultation with YSAQMD staff.</p>				
Biological Resources				
BIO-1 Rare Plants:	City	City	Prior to construction activities	
<p>To avoid impacts to rare plants, a pre-construction survey for rare plants will be conducted in the appropriate blooming season for the above listed plants identified as having moderate to high potential to occur within the study area. Prior to construction, vegetated portions of the project site including wetland habitats will be surveyed by a qualified botanist for special-status plants following established CDFW Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities (CDFG, 2009), which calls for protocol-level surveys during the appropriate flowering/identification period for each potentially affected species.</p> <p>If rare plants are found, they shall be documented in the CNDDB and CDFW shall be consulted regarding further measures to avoid/minimize impacts to identified rare plants. Per consultation with the CDFW, the following measures shall be implemented where feasible:</p> <ol style="list-style-type: none"> Avoid existing, known populations where possible; Minimize impacts by restricting removal of plants to a few individuals of a population where possible; and Prepare a Mitigation and Monitoring Plan to relocate plants and/or seed banks or reintroduce new populations in suitable habitat and soil types within the on- 				

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Implementing Responsibility	Monitoring Responsibility	Timing	Verification of Compliance (Initials and Date)
site Preserve or at a CDFW-approved off-site location.				
<p>BIO-2 Giant garter snake:</p> <p>In order to ensure that impacts to giant garter snake and its habitat shall be avoided or reduced, measures in accordance with the <i>USFWS Programmatic Formal Consultation for U.S. Army Corps of Engineers 404 Permitted Projects with Relatively Small Effects on the Giant Garter Snake within Butte, Colusa, Glenn, Fresno, Merced, Sacramento, San Joaquin, Solano, Stanislaus, Sutter and Yolo Counties, California</i> (USFWS, 1997) shall be implemented. These measures include the following:</p> <ol style="list-style-type: none"> 1. No less than 24-hours prior to the commencement of construction activities, a preconstruction survey shall be conducted to survey for giant garter snakes by a USFWS-approved biologist. The biologist will provide the USFWS with a written report that adequately documents the monitoring efforts within 24-hours of commencement of construction activities. The project area shall be re-inspected by the monitoring biologist whenever a lapse in construction activity of two weeks or greater has occurred. 2. A Worker Environmental Awareness Training Program for construction personnel shall be conducted by the USFWS-approved biologist for all construction workers, including contractors, prior to the commencement of construction activities. The program shall provide workers with information on their responsibilities with regard to the snake, an overview of the life-history of this species, information on take prohibitions, protections afforded this animal under the federal Endangered Species Act. Written documentation of the training must be submitted to the Sacramento Fish and Wildlife Service Office within 30 days of the completion of training. As needed, training shall be conducted in Spanish for Spanish language speakers. 3. An on-call biologist shall be available for construction personnel to contact in the event that giant garter snake is encountered in the construction footprint. 4. Construction activity within giant garter snake habitat (e.g. aquatic, upland, and rice habitat) shall be conducted between May 1 and October 1. This is the active period for the snake and direct mortality is lessened as snakes are expected to actively move and avoid danger. If it appears that construction activity may go beyond October 1, the City's prime contractor shall contact the USFWS as soon as possible, but not later than September 15th of the year in question, to determine if additional measures are necessary to minimize take. The City must consult with USFWS to determine measures to avoid impacts to giant garter snake. A USFWS-approved biologist shall inspect construction-related activities for unauthorized take. The biologist shall be available for monitoring throughout all phases of construction that may result in adverse effects to the giant garter snake. 	City	City	Prior to and during construction activities	

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Implementing Responsibility	Monitoring Responsibility	Timing	Verification of Compliance (Initials and Date)
<p>5. Between April 15 and October 1 any surface water that requires dewatering that is considered habitat must remain dry for at least 15 consecutive days after April 15 and prior to excavating or filling the dewatered habitat, except that the area may remain dry for less than 15 days if the dry period extends past October 1.</p> <p>6. Movement of heavy equipment to and from the project site shall be restricted to established roadways to minimize habitat disturbance.</p> <p>7. Temporary impacts to giant garter snake habitat shall be restored to pre-project conditions. Areas subject to temporary impacts shall be limited to one season (the calendar year period between May 1 and October 1) and be restored within two seasons. Permanent impacts to giant garter snake habitat shall be replaced at a 3:1 ratio which must include both upland and aquatic habitat components. A portion of the mitigation for permanent loss of wetlands at a ratio no less than 1:1 as required per Mitigation Measure BIO-4 may fulfill a portion of the 3:1 mitigation obligation for permanent impacts to giant garter snake habitat. This mitigation may be fulfilled through in-kind, onsite or off-site, out-of-kind mitigation as approved by the U.S. Fish and Wildlife Service and the Corps.</p>				
BIO-3 <u>Tricolored blackbird:</u>	City	City	Prior to construction activities	
<p>1. Prior to commencement of construction, a qualified biologist shall conduct a pre-construction survey for tricolored blackbird and other protected and migratory bird species. The survey will be conducted to identify any active nests located within the construction area or up to 0.5 mile from the construction area.</p> <p>2. If active nests are found during the survey, the applicant shall implement appropriate mitigation measures to ensure that the species will not be adversely affected, which will include establishing a no-work buffer zone around the active nest. Appropriate mitigation measures include delaying construction activities until a qualified biologist determines that juveniles have fledged the nest(s), or establishing a "no construction" zone buffer of 500 feet around the nest.</p>				
BIO-4 <u>Valley elderberry longhorn beetle:</u>	City	City	Prior to and during construction activities	
<p>Elderberry shrubs will be avoided where possible. The City will ensure that elderberry shrubs within 100 feet of the Proposed Project shall conform to the following guidelines for avoidance of impacts and take as defined under the federal Endangered Species Act for the VELB. These guidelines comply with habitat creation and mitigation measures described in the USFWS Conservation Guidelines for the Valley Elderberry Longhorn Beetle (USFWS, 1999) and the <i>Programmatic Formal Consultation Permitting Projects with Relatively Small Effects on the Valley</i></p>				

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Implementing Responsibility	Monitoring Responsibility	Timing	Verification of Compliance (Initials and Date)
<i>Elderberry Longhorn Beetle Within the Jurisdiction of the Sacramento Field Office</i> (USFWS, 1996).				
<ol style="list-style-type: none"> For all shrubs that can be avoided by construction activities, a 100-foot buffer surrounding the plant shall be maintained at all times. The buffer shall be fenced with temporary fencing and flagging. Signs shall be placed along the fencing every 50 feet that state the following: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment." The above sign shall be readable from a distance of 20 feet and maintained through the duration of construction. Work crews shall be briefed on the status of the beetle, the need to protect its host plant (elderberries), requirements to avoid damaging elderberry shrubs, and possible penalties for not complying with identified avoidance and minimization measures. In addition, construction workers should be made aware of the habitat needs of VELB and the location of protection areas on the site (USFWS, 1999). For indirectly affected shrubs, a 20-foot buffer shall be fenced with temporary fencing and flagging and maintained throughout construction. Signs shall be placed along the fencing as described above, and work crews will be briefed as described above. The project proponent shall restore any damage occurring within 100 feet of elderberry shrubs that are not removed by the project during construction. Erosion control will be provided and the area will be revegetated with appropriate native plants. No insecticides, herbicides, fertilizers, or other chemical shall be used within 100 feet of any elderberry shrub with one or more stems measuring 1 inch or greater in diameter at ground level. A written description of planned restoration, protection, and maintenance of buffer areas post-construction shall be provided. For any directly affected shrubs, the project proponent shall provide compensatory mitigation by either: 1) purchasing credits for all required compensation from the USFWS-approved Conservation Bank, 2) transplanting the shrubs onto the Conservation Bank property and purchasing credits for any remaining mitigation requirements using mitigation ratios described in USFWS Conservation Guidelines for the Valley Elderberry Longhorn Beetle (USFWS, 1999), or 3) transplanting the shrubs onto the Conservation Bank property and planting additional seedlings for any remaining mitigation requirements using mitigation ratios described in USFWS Conservation <i>Guidelines for the Valley Elderberry Longhorn Beetle</i> (USFWS, 1999). Each credit purchased from the Conservation Bank will provide compensatory mitigation for five elderberry stems and five associated native plant species. If the shrubs are relocated to the Conservation Bank property, all Conservation Guidelines described by USFWS (1999) for elderberry transplants shall be implemented, and the project proponent's contractor shall coordinate with the Conservation Bank to replant the shrubs. 				

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Implementing Responsibility	Monitoring Responsibility	Timing	Verification of Compliance (Initials and Date)
BIO-5 Burrowing owl:	City	City	Prior to and during construction activities	
<ol style="list-style-type: none"> Pre-construction surveys for burrowing owls shall be conducted by a qualified biologist (as approved by the CDFW) within 30-days prior to the start of work activities where land construction is planned in known or suitable habitat. If construction activities are delayed for more than 30 days after the initial preconstruction surveys, then a new preconstruction survey shall be required. All surveys shall be conducted in accordance with the CDFW survey protocols. If burrowing owls are discovered in the proposed project site vicinity during construction, the onsite biologist shall be notified immediately. Occupied burrows should not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by the CDFW verifies through non-invasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival. If this criteria is not met, occupied burrows during the nesting season will be avoided by establishment of a no-work buffer of 250-foot around the occupied/active burrow. Where maintenance of a 250-foot no-work buffer zone is not practical, the applicant shall consult with the CDFW to determine appropriate avoidance measures. Burrows occupied during the breeding season (February 1 to August 31) will be closely monitored by the biologist until the young fledge/leave the nest. The onsite biologist shall have the authority to stop work if it is determined that construction related activities are disturbing the owls. If criterion 1 or 2 above are met, and as approved by CDFW, the biologist shall undertake passive relocation techniques by installing one-way doors in active and suitable burrows allowing owls to escape but not re-enter. Owls should be excluded from the immediate impact zone and within a 160-foot buffer zone by having one-way doors placed over the entrance to prevent owls from inhabiting those burrows. After nesting season ends (August 31) and the burrow is deemed unoccupied by the biologist, passive relocation techniques shall take place. Construction activities may occur once a qualified biologist has deemed the burrows are unoccupied. 				
BIO-6 Western pond turtle:	City	City	Prior to and during construction activities	
<ol style="list-style-type: none"> No more than two weeks prior to the commencement of ground-disturbing activities, the applicant will retain a qualified biologist to perform surveys for western pond turtle within suitable aquatic and upland habitat on the project site. Surveys will include western pond turtle nests as well as individuals. The 				

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Implementing Responsibility	Monitoring Responsibility	Timing	Verification of Compliance (Initials and Date)
<p>biologist (with the appropriate agency permits or approvals) will temporarily move any identified western pond turtles upstream of the construction site, and temporary barriers will be placed around the construction site to prevent ingress.</p> <p>2. Construction shall not proceed until the work area is determined to be free of turtles and their nests. The biologist will be responsible for moving adult turtles that enter the construction zone after construction has begun. If a nest is located within a work area, the biologist (with the appropriate permits or approvals from the CDFW) may move the eggs to a suitable facility for incubation, and release hatchlings into the creek system in late fall. The biologist will be present on the project site during initial ground clearing and all other construction activities adjacent to drainages with the potential to support western pond turtle.</p>				
BIO-7 Federally protected wetlands:	City	City	Prior to and during construction activities	
<p>1. The applicant shall avoid and protect federally protected wetlands and riverine habitats located in the vicinity of the project site by installing protective fencing. Protective fencing shall be installed along the edge of construction areas including temporary and permanent access roads where construction will occur within 200 feet of the edge of wetland and riverine habitat (as determined by a qualified biologist). The location of fencing shall be marked in the field with stakes and flagging and shown on the construction drawings. The construction specifications shall contain clear language that prohibits construction-related activities, vehicle operation, material and equipment storage, trenching, grading, or other surface-disturbing activities outside of the designated construction area. Signs shall be erected along the protective fencing at a maximum spacing of one sign per 50 feet of fencing. The signs shall state: "This area is environmentally sensitive; no construction or other operations may occur beyond this fencing. Violators may be subject to prosecution, fines, and imprisonment." The signs shall be clearly readable at a distance of 20 ft, and shall be maintained for the duration of construction activities in the area.</p> <p>2. If it is determined that the project will directly impact waters of the U.S., the project applicant shall obtain all required permit approvals from the Corps, RWQCB, CDFW and any other agencies with permitting responsibilities for construction activities within jurisdictional features. Permit approvals and certifications would likely include the following:</p> <p>a) <u>Clean Water Act Section 404</u>. Permit approval from the Corps shall be obtained for the placement of dredge or fill material in waters of the U.S. pursuant to Section 404 of the federal Clean Water Act. The Section 404 permit application would require a delineation of wetlands and other waters of the U.S., a jurisdictional determination from the USACE,</p>				

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Implementing Responsibility	Monitoring Responsibility	Timing	Verification of Compliance (Initials and Date)
<p>and preparation of a Pre-Construction Notification (PCN) and supporting documentation. A PCN outlines project activities, areas of impact, construction techniques, and methods for avoiding and reducing impacts to jurisdictional features. State and federal regulations require that the project applicant avoid or minimize impacts to wetlands and waters and develop appropriate protection for wetlands. Wetlands that cannot be avoided must be compensated to result in "no net loss" of wetlands to ensure that the project shall maintain the current functions and values of onsite wetland habitats.</p> <p>b) <u>Clean Water Act Section 401 Water Quality Certification/Porter-Cologne Act</u>. Approval of Water Quality Certification (WQC) under the CWA and/or Waste Discharge Requirements (WDRs) under the Porter-Cologne Act shall be obtained from the RWQCB for work within jurisdictional waters. Application for a WQC requires an application and supporting materials, including construction techniques, areas of impact, mitigation measures, project schedule, and proof of CEQA compliance. Application for a WDR requires an application and supporting materials, including a characterization of the discharge which includes but is not limited to: design and actual flows; a list of constituents and the discharge concentration of each constituent; a list of other appropriate waste discharge characteristics; a description and schematic drawing of all treatment process; a description of any BMPs used; and a description of disposal methods. Proof of CEQA compliance is also required.</p>				
Cultural Resources				
CUL-1: An archaeological and a Native American monitor shall be present during ground disturbing activities associated with the project. These activities may include trenching for the pipeline in the eastern portion of the project area and the development of ponds immediately adjacent to the east side of the main treatment plant facility.	City	City	Prior to and during construction activities	
CUL-2: If previously undiscovered cultural resources are encountered, all activity in the vicinity of the find shall cease until it can be evaluated by a qualified archaeologist. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-period materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. If the archaeologist determines that the resources may be significant, they will notify the City. An appropriate treatment plan for the resources should be developed. The archaeologist shall consult with Native American representatives in determining appropriate treatment for prehistoric or Native American cultural resources.	Construction Contractor	City	During construction activities	

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Implementing Responsibility	Monitoring Responsibility	Timing	Verification of Compliance (Initials and Date)
CUL-3: If human skeletal remains are uncovered during project construction, the project proponent will immediately halt work, contact the Yolo County coroner to evaluate the remains, and follow the procedures and protocols set forth in Section 15064.5 (e)(1) of the CEQA Guidelines. If the County coroner determines that the remains are Native American, the project proponent will contact the NAHC, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by AB 2641). Per Public Resources Code 5097.98, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section (PRC 5097.98), with the most likely descendents regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.	Construction Contractor	City	During construction activities	
Transportation and Traffic				
TRAFFIC-1: The City will require the contractor(s) to prepare a Traffic Control Plan in accordance with Caltrans and other professional engineering standards prior to construction. The Traffic Control Plan could, but is not limited to, the following requirements: <ul style="list-style-type: none"> Emergency services access to local land uses shall be maintained at all times for the duration of construction activities. Local emergency service providers shall be informed of proposed construction activities and identified haul routes. Access for local land uses including residential driveways, commercial properties, and agricultural lands during construction activities shall be maintained. Roadside safety protocols shall be complied with, so as to reduce the risk of accident. A telephone resource shall be arranged to address public questions and complaints during project construction. 	Construction Contractor	City	Prior to and during construction activities	