

**Appendix A**  
**Scoping Summary and Notice of Preparation**



**City of Modesto Utilities Department**  
**Modesto Wastewater Master Plan Update**

**State Clearinghouse Number: 2016062033**

**Modesto, California**

**CEQA Scoping Summary**

**Prepared for:**

City of Modesto, Utilities Department  
P.O. Box 642 (1010 Tenth Street)  
Modesto, CA 95353

**Prepared by:**

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180 Grand Avenue, Suite 1405  
Oakland, California 94612  
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(510) 986-1852

**September 2016**

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## Background and Purpose

*Scoping* refers to the process to determine the scope, focus, content, and extent of an environmental impact report (EIR). A key feature of the scoping process is to engage the public and public agencies for feedback regarding the proposed project. The scoping comment period offers an important opportunity for the public and agencies to review and comment during the early phases of the environmental compliance process. Scoping helps identify and select an appropriate range of alternatives to be considered in the EIR. Scoping also helps define analysis methods, initially identify potential environmental effects to be considered in detail, and consider mitigation measures to avoid or compensate for adverse effects. In some cases, it may also identify issues that the public feels do not warrant analysis.

This report documents the scoping process undertaken by the City of Modesto Utilities Department (City) for the Wastewater Master Plan Update (Proposed Program) to comply with Section 15082 of the California Environmental Quality Act (CEQA) Guidelines. This report also summarizes comments received from agencies consistent with Section 15082(b) of the CEQA Guidelines. Comments are reproduced in their entirety in the appendices to this report.

## Proposed Project Scoping Process

Scoping is initiated when the lead agency issues a Notice of Preparation (NOP) announcing the beginning of the EIR process. In accordance with Section 15082 of the CEQA Guidelines, a NOP was developed that provided information on the background, goals, and objectives of the Proposed Program. The NOP announced the EIR's preparation and requested public and agency comment on the Proposed Program. An initial study was also developed for the Proposed Program. A copy of the NOP/Initial Study is included in **Attachment A**.

The NOP was distributed for review and comment to numerous federal and state agencies, departmental and public services agencies within Stanislaus County, and interested parties. A copy of the mailing list is included in Attachment A. The City published an advertisement to announce EIR scoping in the Modesto Bee on June 10, 2016. The City also posted the NOP/Initial Study or post on the City's website to announce EIR scoping.

The City held a public scoping meeting for the Proposed Program on June 22, 2016 at City Hall, 1010 10<sup>th</sup> Street, Room 2001, Modesto. One person attended the meeting.

The NOP for the Proposed Program was received by the State Office of Planning and Research, State Clearinghouse on June 10, 2016, which initiated the public scoping period. The State Clearinghouse Number for this project is 2016062033 and a copy of the State Clearinghouse posting can be found in **Attachment B**.

The public scoping comment period officially ended on July 10, 2016.

## Public Comments Received

### June 22, 2016 Meeting Summary

One person attended the scoping meeting, an employee at the Turlock Irrigation District (TID). The majority of questions and comments received at the scoping meeting related to the scope of the WWMP Update, clarification about the proposed storm drain/sewer cross-connection improvements, Sutter wastewater treatment plant improvements, decommissioning of the Sutter Plant, need for the third outfall pipeline, and potential conflicts with utility lines. These concerns are summarized under the “Comment Summary by Topic” section below.

### Comment Letters

One comment letter was received during the scoping period from the following party:

- Office of Planning and Research, State Clearinghouse (June 10, 2016)

A copy of the comment letter is included in **Attachment C** of this report and summarized below. The State Clearinghouse’s letter is a courtesy notice requesting state agencies to provide comments on the Wastewater Master Plan Update Draft EIR in a timely manner.

## Comment Summary by Topic

The comments received and concerns described during the scoping period involved the project description and project impacts. These comments are summarized below, and the commenter is identified in parenthesis. All comments received will be addressed in the EIR.

### Comments on Project Description and Elements

- Does the WWMP boundary encompass the Preferred and Alternative General Plan Update boundaries? (TID)
- How will the City of Modesto manage stormwater/flooding once the storm drain/sewer cross-connections are severed? (TID)
- Why is wastewater treatment capacity at the Sutter Plant needed to address “peak wet weather flows” after the storm drain/sewer cross-connections are severed? (TID)
- If rain water leaks into the sewer pipes, does the City know how much sewage leaks out of the pipes? How did the WWMP evaluate leaking pipes? (TID)
- What will happen to the Sutter Plant after the treatment facilities are decommissioned? (TID)
- Is flooding a concern at the Jennings Plant and does the WWMP evaluate flooding potential and any improvements to protect the wastewater treatment plant from flooding impacts? (TID)
- Will all discharges from the cannery segregation outfall go to the City’s ranch lands for irrigation/infiltration? (TID)

- Why is a new third outfall pipeline needed and why is redundancy and extra capacity needed? (TID)

### **Comments on Impacts**

#### *Utilities*

- There are a lot of utility and electrical lines along Carpenter Road. Potential conflicts with utilities during pipeline construction should be considered in the EIR. (TID)

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**Attachment A:  
Notice of Preparation and Distribution List**





## Notice of Preparation (NOP) of a Draft Environmental Impact Report for the Wastewater Master Plan Update

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**Date:** June 10, 2016

**To:** State Clearinghouse, and Responsible and Trustee Agencies

The City of Modesto (City) will serve as the Lead Agency under the California Environmental Quality Act (CEQA) in preparing an Environmental Impact Report (EIR) for the Wastewater Master Plan Update (WWMP) (Program or Proposed Program). The Proposed Program is located in the City of Modesto and other communities in Stanislaus County. The City is seeking the views of your agency regarding the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the Proposed Program. Your agency may need to use the subject EIR when considering any necessary permit or other approval for the Program. Interested parties and individuals are also invited to comment on alternatives to, concerns with, and environmental issues or potential effects of the project. Please share this notice with anyone you feel may be interested in the Program.

The Proposed Program description, location, and the potential environmental effects are contained in the attached materials and are available online at: <https://www.modestogov.com/uppd/reports/>.

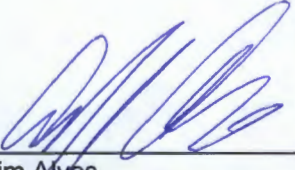
**Public Scoping Meeting:** A public scoping meeting will be held to receive agency and public comments on the scope of the EIR for the Proposed Program.

**Date and Time:** June 22, 2016 at 6:00 pm

**Location:** City Hall  
1010 10<sup>th</sup> Street, Room 2001  
Modesto, CA 95354

Due to the time limits mandated by State law, your written response must be sent at the earliest possible date but **not later than 30 days after receipt of this notice**.

Please send your response to: Jim Alves, Associate Civil Engineer  
City of Modesto Utilities Department  
P.O. Box 642 (1010 10<sup>th</sup> Street)  
Modesto, CA 95353  
[jalves@modestogov.com](mailto:jalves@modestogov.com)  
(209) 571-5557

  
\_\_\_\_\_  
Jim Alves  
Associate Civil Engineer

6-6-16  
\_\_\_\_\_  
Date



**Aviso de Preparación de un reporte preliminar de impacto ambiental para la actualización de El Plano Maestro de Drenaje Sanitario**

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**Fecha:** 10 de junio de 2016

**Para:** State Clearinghouse, y Agencias Responsables y Fideicomisarios

La Ciudad de Modesto va servir como la agencia principal bajo la Ley de Calidad Ambiental de California (California Environmental Quality Act, CEQA) en preparación de un informe de impacto ambiental (Environmental Impact Report, EIR) para actualizar el Plano Maestro de Drenaje Sanitario (Programa o Programa Propuesto). El Programa Propuesto está localizado en la Ciudad de Modesto y en otras comunidades del Condado de Stanislaus. La Ciudad está buscando el punto de vista de su agencia en relación con la cobertura y el contenido de la información ambiental cual es relacionado a las responsabilices legales de su agencia en conexión con el Programa Propuesto. Su agencia pueda necesitar el uso del sujeto informe de impacto ambiental cuando considere cualquier permiso necesario o alguna aprobación para el Programa. Partidos o individuos interesados también son invitados a comentar sobre alternativas para, preocupaciones sobre, y asuntos ambientales o efectos potenciales del proyecto. Por favor comparta este aviso con cualquier persona que usted piense que tuviera interés sobre el Programa. La descripción, localidad, y posibles efectos ambientales del Programa Propuesto, están contenidos en los materiales incluidos.

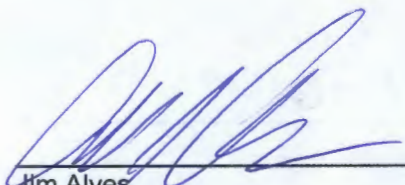
**Junta Pública:** Una Junta Publica sobre la cobertura se va a llevar acabo para recibir comentarios de las agencias y el público sobre la cobertura del informe de impacto ambiental por el Programa Propuesto.

**Fecha y Tiempo:** El 22 de junio del 2016 a las 6:00 pm

**Lugar:** Municipio (City Hall)  
1010 10th Street, Room 2001  
Modesto, CA 95354

Debido a los límites de tiempo establecidos por las leyes del estado, debe mandar su repuesta en escrito lo más pronto posible pero **no más tarde de 30 días después de recibir este aviso.**

Por favor mande su respuesta a: Jim Alves, Associate Civil Engineer  
City of Modesto Utilities Department  
P.O. Box 642 (1010 10th Street)  
Modesto, CA 95353  
[jalves@modestogov.com](mailto:jalves@modestogov.com)

  
\_\_\_\_\_  
Jim Alves  
Associate Civil Engineer

8-6-16  
\_\_\_\_\_  
Fecha

## **A. Project Description**

### **1. Introduction**

As the lead agency responsible for compliance with the California Environmental Quality Act (CEQA), the City of Modesto (City) has determined that the Wastewater Master Plan (WWMP) (Program or Proposed Program) has potential to result in a significant impact on the physical environment, and has decided to prepare an Environmental Impact Report (EIR) to provide ample opportunity for public disclosure and participation in the planning and decision making process. The Proposed Program would consist of numerous Capital Improvement Projects (CIPs) collectively intended for system-wide implementation needed to ensure adequate wastewater infrastructure and services are available to meet wastewater demand requirements under both existing and future developed conditions. Further details of the Proposed Program are provided below.

The purpose of the draft EIR process is to identify and evaluate possible environmental impacts of the Program, and consider mitigation measures and feasible alternatives to avoid, reduce, or compensate for any significant impacts on environmental resources, while still achieving the primary Program objectives.

This document, which serves as the Notice of Preparation (NOP) required by CEQA and the State CEQA Guidelines (California Code of Regulations [CCR] title 14, section 15000 et seq.) contains a brief description of the Program, including its goals and objectives, and possible environmental impacts (as described in the attached Initial Study). It also provides an overview of the opportunities for participation in review of the EIR, along with contact information.

### **2. Background**

The City operates and maintains a wastewater collection system that services all incorporated areas of Modesto, a portion of north Ceres, the unincorporated community of Empire, and unincorporated “islands” in Stanislaus County that are served by agreement with the City. The City conducts a periodic review of the City’s growth trends to identify potential areas of new growth, infill development, and urban infrastructure serving the area. Previous reviews recognized existing and planned sanitary sewer infrastructure as a potential constraint to the urban growth of the City. Some of these deficiencies were addressed in the City’s 2007 Wastewater Master Plan and CIP. The City has made a number of improvements since the 2007 Wastewater Master Plan but still faces challenges associated with aging infrastructure; providing reliability of critical facilities; and, for future growth, providing increased capacity and extending infrastructure when it is needed. The Proposed Program includes a number of improvements that are anticipated to address these challenges.

### **3. Program Purpose and Objectives**

The objectives of the Proposed Program as a whole are as follows:

- Implement the City's economic goals and Urban Area General Plan by planning for, and providing, sewer infrastructure in a timely and cost-effective manner to serve new and existing development.
- Continue the City's policy of providing affordable and attractive wastewater rates.
- Repair and replace aging wastewater infrastructure.
- Ensure adequate wastewater infrastructure and services are available to serve new growth within the City's Sphere of Influence.
- Provide an adequate funding mechanism to pay for necessary improvements.
- Require new development to pay for infrastructure necessary to serve it.
- Plan for state-of-the-art facilities that reliably and economically meet the changing regulatory requirements.

For collection system improvements, the objectives of the Proposed Program are:

- To increase sewer capacity to convey peak wet weather flows for a 10-year storm event, and where required, to serve future customers.
- To reduce wet weather flow volumes by removing cross connections with stormwater sewers.
- To extend service to new customers.
- To replace, repair, or rehabilitate existing trunk sewers (by lining or coating the interior walls), and to reduce infiltration and inflow of stormwater into the sanitary sewers.
- To improve sewer collection reliability by providing new and redundant infrastructure improvements, including sewer trunk lines and lift stations, in known deficient areas at critical areas within the existing system.

For treatment plant improvements, the objectives are:

- To improve treatment reliability and provide sufficient capacity at the Sutter Avenue Primary Treatment Plant (Primary Plant or Sutter Plant) during peak wet weather flow events.
- To improve reliability and increase capacity by constructing new primary treatment and solids handling facilities at the Jennings Road Secondary Treatment Plant (Secondary Plant or Jennings Plant) and decommission primary treatment and solids handling facilities from the Sutter Plant.
- To increase the capacity of the outfall connecting the primary and secondary treatment plants, and to provide increased reliability for the existing outfall.

#### **4. Program Location**

The proposed wastewater collection system and improvements to the Sutter Plant would occur within the City and its wastewater service area (see **Figures 1 and 2**). The City's wastewater service area includes all incorporated areas of Modesto, a portion of north Ceres, the unincorporated community of Empire, and unincorporated "islands" in the County that are served by agreement. The Sutter Plant is in the southwestern portion of Modesto, adjacent to the north bank of the Tuolumne River. The Jennings Plant is approximately 6.5 miles southwest of the Modesto urban area and located on City-owned land on the eastern side of the San Joaquin River. These areas are shown in Figures 1 and 2.

#### **5. Existing Facilities and Operations**

The City's wastewater system consists of approximately 40 sewer lift stations; more than 600 miles of sanitary lines, ranging from 6 to 66 inches; 69 miles of trunk lines (pipelines greater than 15-inches in diameter); and an additional separate 15 miles of trunk lines connecting cannery food processors directly to land disposal (application) areas. Most of the City's wastewater system flows by gravity, but in some areas lift stations (also referred to as pump stations) are necessary to convey wastewater generated within the service area to the Sutter Plant and the Jennings Plant. The City's existing sewer service area and key wastewater treatment facilities are shown in Figure 2.

Wastewater is transmitted to the Sutter Plant via several trunk sewers lines. Initial wastewater treatment begins at the headworks, which includes influent pumping, screening, grit removal, and primary clarification. Excess trash, debris, rags, sand, and other inorganic particles and hauled to a landfill for disposal, while removed biosolids are processed in anaerobic digesters then dried in sludge drying beds. Primary treated wastewater (effluent) is then conveyed to the Jennings Plant for further treatment and/or disposal.

As shown in **Figure 3**, effluent from the Sutter Plant is routed underneath the Tuolumne River through a 54-inch lined Primary Effluent Outfall and 60-inch Cannery Segregation (CanSeg) pipelines. From the Sutter Plant, the effluent is pumped through a river undercrossing to a point where it flows by gravity for a total length of approximately 6.5 miles south to the Jennings Plant where it undergoes secondary and tertiary treatment. The Jennings Plant is situated on the eastern side of the San Joaquin River near Patterson. Phase 1 of the tertiary treatment facilities was completed in 2010 and has production capacity of 2.3 million gallons per day (mgd) and is designed for year-round discharge. The City completed construction of the Phase 2 tertiary treatment facilities at the Jennings Plant in 2015. Phase 2 is currently undergoing operational trials. At full operation, Phase 2 has a production capacity of 15 mgd and with permitted year-round discharge could replace the City's seasonal discharge of secondary effluent.

#### **6. Program Description**

The Proposed Program involves several improvements to the City's collection system, such as replacement or construction of new trunk sewers or pump stations, construction of new parallel sewers, and removal of storm drain cross connections. Proposed improvements at the Sutter Plant include, but are not limited to, upgrading the influent pump station to increase its hydraulic

capacity to convey peak wet weather flows, improvements to the headworks facilities, and decommissioning of primary treatment and solids handling facilities. The Program also includes outfall pipeline improvements, such as replacement of existing pipe crossings under the Tuolumne River and construction of a new third outfall pipeline from the Sutter Plant to the Jennings Plant. At the Jennings Plant, the Program includes upgrades to the secondary and CanSeg treatment facilities, and construction of new primary treatment and solids handling facilities.

Most of the proposed CIPs would be implemented within the City's sewer service area, the Sutter Plant, and the Jennings Plant. Figure 3 shows the conceptual alignment of the third outfall pipeline. This pipeline would traverse the Tuolumne River and is expected to remain within existing County right-of-way. The exact locations of some of the proposed new facilities (e.g., collection system improvements) have yet to be finalized; where tentative sites have been identified, these locations will be identified in the draft EIR.

## **7. Topics to be Analyzed in the EIR**

The City has prepared this NOP pursuant to CEQA Guidelines section 15082. Attached to the NOP is an Initial Study which provides a preliminary environmental impact analysis for the proposed Program. The Initial Study evaluates the proposed Program as it is currently envisioned.

Based on the Proposed Program's potential for significant impacts on the environment, the City has decided to prepare an EIR. The EIR will further assess the Proposed Program's effects on the environment, to identify significant impacts, and to identify feasible mitigation measures to reduce or eliminate potentially significant environmental impacts. Only those topics identified in the Initial Study as having potentially significant adverse effects will be further evaluated in the EIR. The word "significant" is only used in the Initial Study related to the significance of an environmental impact. An analysis of alternatives to the Proposed Program will also be included in the EIR. Topics to be analyzed in the EIR, include but are not necessarily limited to the following:

- Aesthetics
- Agricultural and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Geomorphology
- Land Use and Planning
- Noise and Vibrations
- Recreation
- Transportation/Traffic
- Utilities and Service Systems
- Water Quality
- Cumulative Impacts
- Irreversible Impacts



Responses received to this NOP may modify or add to the preliminary assessment of potential issues addressed in the EIR.

## **8. Environmental Process and Public Scoping Meeting**

This NOP initiates the CEQA process through which the City will refine the range of issues and project alternatives to be addressed in the draft EIR. Comment is invited on the proposal to prepare the EIR and on the scope of issues to be included in the EIR.

Please submit any comments within 30 days of receipt of this notice to the City (see *Contact Information* below). In conjunction with the 30-day review period for the NOP, the City will hold a scoping meeting to provide an additional opportunity to learn about the project, ask questions, and provide comments about the scope and content of the information to be addressed in the draft EIR. The scoping meeting will be held at 6:00 pm on June 15, 2016 at the following location:

City Hall  
1010 10<sup>th</sup> Street, Room 2001  
Modesto, CA 95354

After the 30-day review period for the NOP is complete and all comments are received, a draft EIR will be prepared in accordance with CEQA, as amended (Public Resources Code [PRC] §21000 et seq.), and the State Guidelines for Implementation of CEQA (CCR §15000 et seq.).

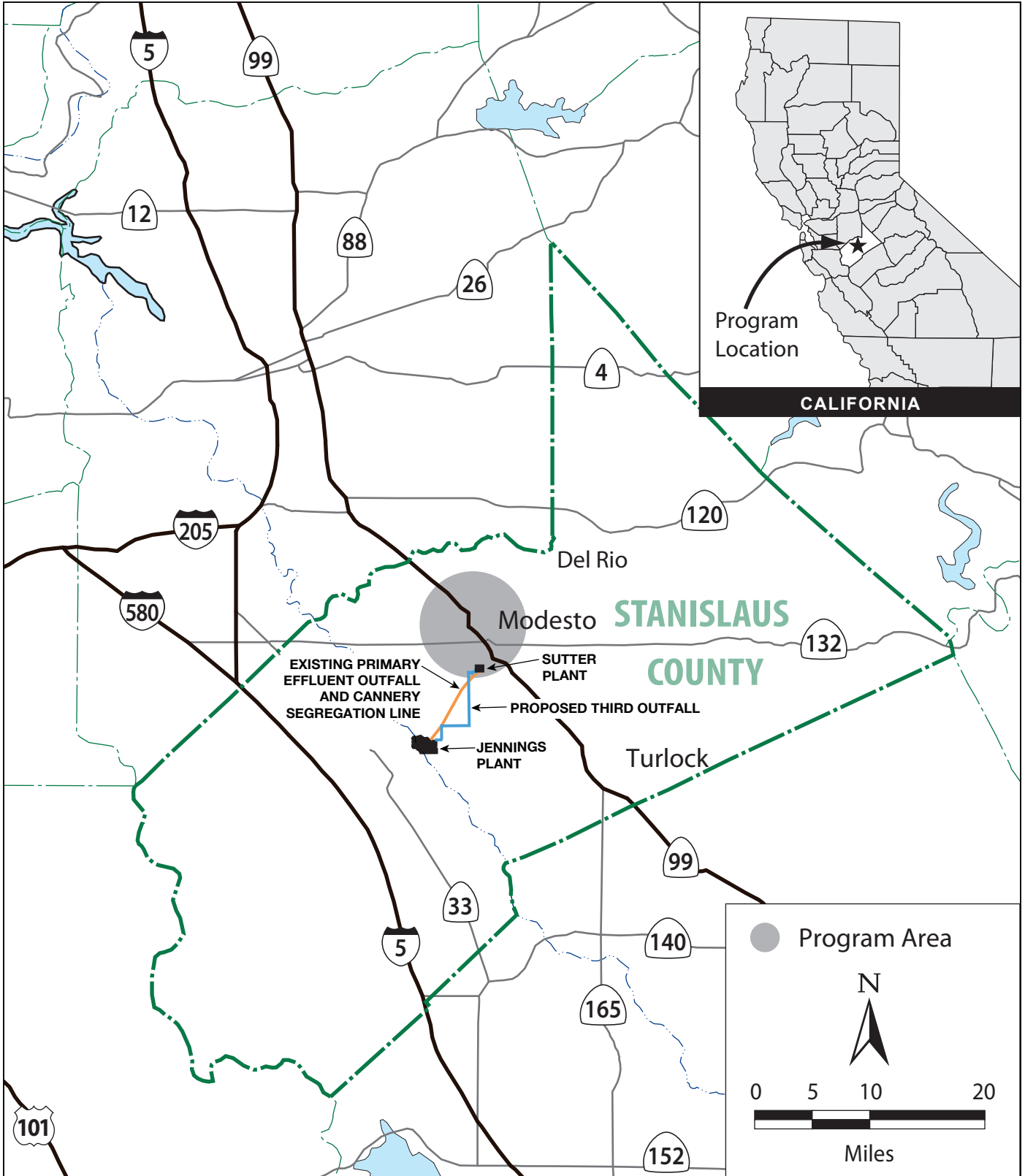
Once the draft EIR is completed, it will be made available for a 45-day public review and comment period. Copies of the draft EIR will be sent directly to those agencies commenting on the NOP, and will also be made available to the public at a number of locations, including the City's offices, and public libraries in the area. Information about availability of the draft EIR will also be posted on the following website: <https://www.modestogov.com/uppd/reports/>

## **9. Contact Information**

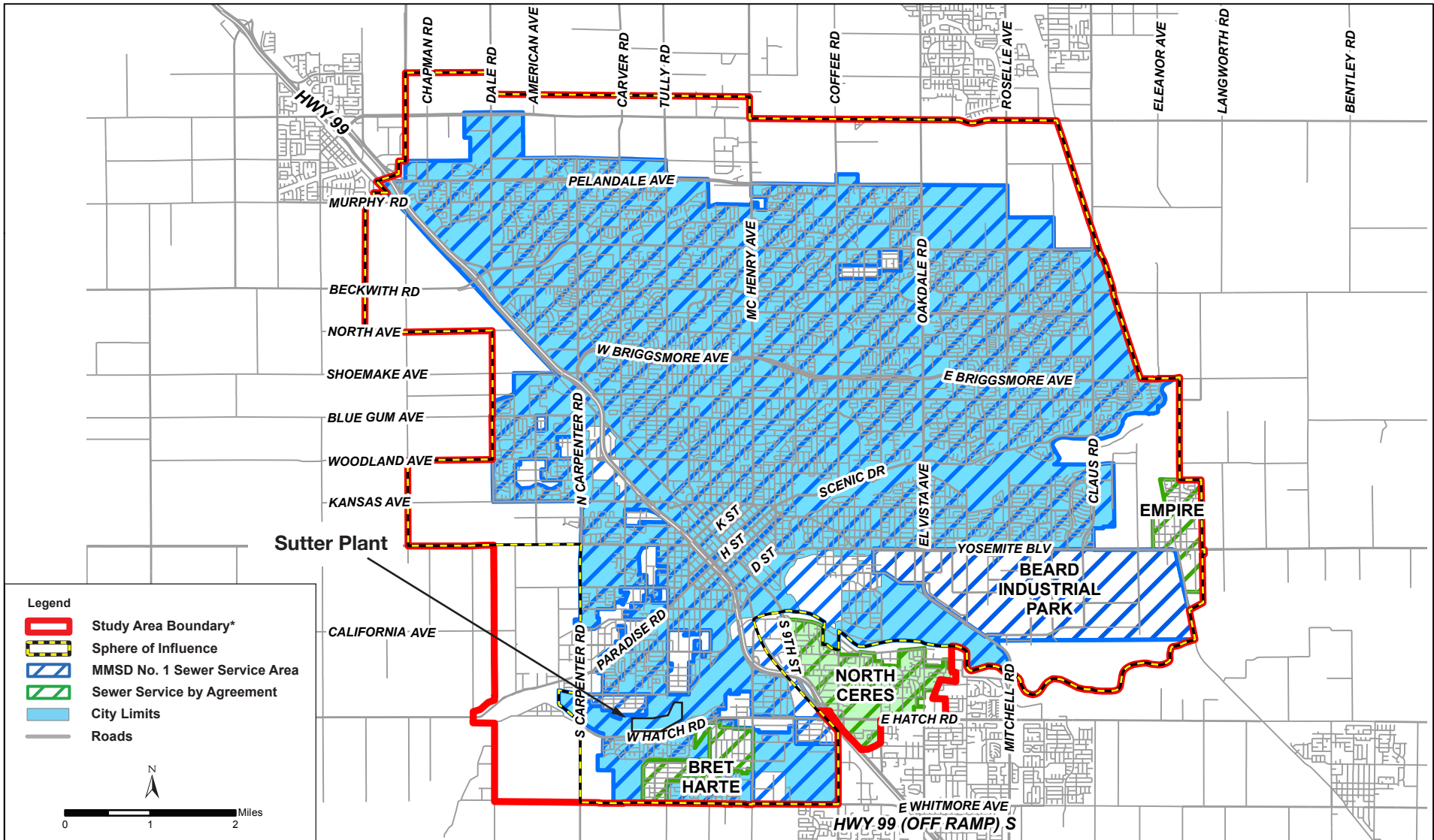
For further information, contact:

Jim Alves, Associate Civil Engineer  
City of Modesto Utilities Department  
P.O. Box 642 (1010 10<sup>th</sup> Street)  
Modesto, CA 95353  
jalves@modestogov.com

Additional information relevant to the Program and the draft EIR can also be found online at the following website: <https://www.modestogov.com/uppd/reports/>



**Figure 1  
Project Location**

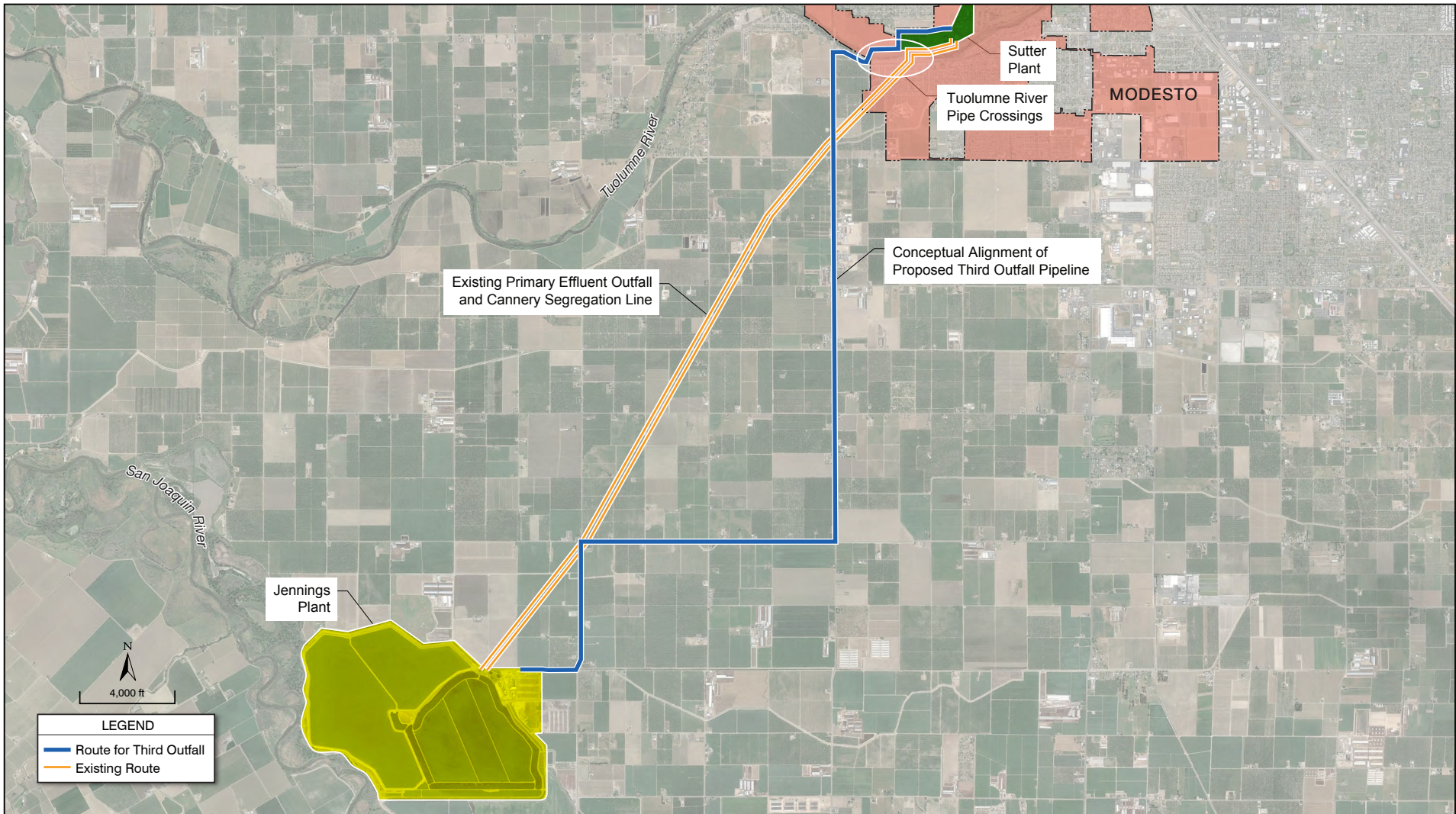


**Figure 2**  
**Wastewater Master Plan Sewer Service Study Area**

Source: City of Modesto, 2016

Prepared by:





**Figure 3**  
**Location of Wastewater Treatment Plants**

Source: Carollo, 2016

Prepared by:



## B. Environmental Checklist

Project Title:	Wastewater Master Plan Update
Lead Agency Name and Address:	City of Modesto Utilities Department P.O. Box 642 (1010 10 <sup>th</sup> Street) Modesto, CA 95353
Contact Person and Phone Number:	Jim Alves, Associate Civil Engineer (209) 571-5557
Project Location:	City of Modesto, a portion of north Ceres, the unincorporated community of Empire, and other unincorporated areas of Stanislaus County
Project Lead Contact and Address:	Jim Alves, Associate Civil Engineer City of Modesto Utilities Department P.O. Box 642 (1010 10 <sup>th</sup> Street) Modesto, CA 95353
General Plan Designation:	Various
Zoning:	Various
Description of Project:	See Project Description
Surrounding Land Uses and Setting:	Various
Other Public Agencies whose Approval or Input May Be Needed:	<ul style="list-style-type: none"> <li>▪ United States Army Corps of Engineers</li> <li>▪ United States Fish and Wildlife Service</li> <li>▪ National Marine Fisheries Service</li> <li>▪ California Department of Fish and Wildlife</li> <li>▪ California State Water Resources Control Board</li> <li>▪ Central Valley Regional Water Quality Control Board (RWQCB)</li> <li>▪ San Joaquin Valley Air Pollution Control District</li> <li>▪ Stanislaus County</li> </ul>

### 1. Environmental Factors Potentially Affected

The environmental factors checked below would potentially be affected by this Program (i.e., the Program would involve at least one impact that is a “Potentially Significant Impact”), as indicated by the checklist on the following pages.

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

## 2. Evaluation of Environmental Impacts

The degree of change from existing conditions resulting from implementation of the Program is compared to the impact evaluation criteria to determine if the change is significant. Where it is determined that one or more significant impacts could result from implementation of the Program, mitigation measures would be developed to reduce or eliminate the significant impacts. Existing conditions serve as a baseline for evaluating the impacts of the Program.

The following terminology is used in this document to describe the various levels of environmental impacts associated with the Program:

- A finding of *no impact* is identified if the analysis concludes that the Proposed Program would not affect a particular environmental topical area in any way.
- An impact is considered *less than significant* if the analysis concludes that the proposed Program would not cause a substantial adverse change in the environment.
- An impact would be considered to have *potentially significant issues* if the analysis concludes that the Proposed Program could cause a significant environmental impact. A program that potentially produces significant impact(s) warrants a greater level of analysis and consideration provided by an EIR.

### 3. CEQA Environmental Checklist

I. AESTHETICS: Would the project:	Potentially Significant Issues	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 designated scenic highway?			X
c) Substantially degrade the existing visual character or quality 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	

#### Explanations

##### a) Substantial adverse effects on scenic vistas – *Less than Significant*

The Proposed Program would be unlikely to significantly adversely affect a scenic vista. New lift stations, wastewater treatment facilities and improvements, and other above-ground facilities could potentially have adverse aesthetic effects on a site-specific level; while below-ground infrastructure, such as new sewer trunks and collection infrastructure, could have temporary adverse aesthetic effects during construction. However, these facilities would not be anticipated to be sited within a scenic vista and any such effects would not be anticipated to be significant from the perspective of a scenic vista. The Proposed Program would have a **less than significant** impact on scenic vistas.

##### b) Substantial damage to scenic resources – *No Impact*

Proposed CIPs would not be sited within a designated scenic highway and would not be anticipated to substantially damage scenic resources within a scenic highway. The nearest designated scenic highway to the Program area is Interstate 5 (I-5) (Caltrans 2016), which is approximately 15 miles away. No Program facilities would be constructed in this area. As such, the Proposed Program would have no impact on views from scenic highways. Therefore, the Proposed Program would be anticipated to have **no impact** on scenic resources.

##### c) Substantial adverse changes to the existing visual character and quality – *Potentially Significant Issues*

The Proposed Program could potentially result in substantial adverse changes to the existing visual character and quality of specific facility sites and their surroundings, both during construction and operation. Construction of lift stations, sewer trunk extensions, treatment plant

upgrades, and other facility improvements would involve use of large construction equipment, excavation, and other activities that could adversely affect the existing visual character of a site. Once constructed, Program facilities also could permanently adversely affect the visual character and quality of a site, particularly those facilities that may be located-in or adjacent-to residential areas. These issues would be **potentially significant**, and will be investigated further in the Proposed Program EIR.

**d) Substantial adverse changes to light and glare – *Less than Significant***

The Proposed Program would not be anticipated to create new sources of substantial light or glare which would adversely affect nighttime or daytime views in the area. Lighting necessary near new lift stations or other Program features would be internally directed to reduce light or glare. This impact would be **less than significant**.



<b>II. AGRICULTURAL AND FORESTRY RESOURCES:</b> 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:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, 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 PRC section 12220(g)), timberland (as defined by PRC section 4526), or timberland zoned Timberland Protection (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		

**Explanations**

**a) Causes loss of agricultural lands – Potentially Significant Issues**

The Proposed Program could potentially result in the loss or conversion of important farmland to non-agricultural use. A substantial portion of Stanislaus County is used for agricultural purposes and/or designated Prime Farmland, including areas mapped in the immediate vicinity of the City of Modesto’s urban boundaries and the outlying areas of Del Rio, Ceres, and Turlock (CDOC 2014). The proposed third outfall that extends from the Sutter Plant to the Jennings Plant is

expected to be installed within County right-of-way but given that the outfall alignment is preliminary, the pipeline could potentially affect agricultural lands. It is possible that other facilities may be sited in areas mapped as Important Farmland, thereby resulting in conversion of agricultural land to non-agricultural use or preventing Prime Farmland from being developed for agricultural use in the future. The Proposed Program could also indirectly result in the loss or conversion of Important Farmland by allowing or facilitating additional urban growth onto adjacent agricultural lands. These impacts are considered **potentially significant**. These issues will be investigated further in the EIR.

**b) Conflict with existing zoning for agricultural use, or a Williamson Act contract – Potentially Significant Issue**

Numerous Williamson Act contracts exist in the vicinity of the City of Modesto's urban boundaries and the outlying areas (CDOC 2011). Likewise, numerous parcels in and around the Program area are zoned for agricultural use (Stanislaus County 2015). The proposed third outfall, extending from the Sutter Plant to the Jennings Plant, could affect lands zoned for agricultural use and lands that are subject to Williamson Act contracts. It is possible that other proposed facilities or improvements may be sited in areas under Williamson Act contract or zoned for agricultural use, which could result in a conflict and **potentially significant** impact. This issue will be investigated further in the EIR.

**c) Conflict with existing zoning for forest land or timberland – No Impact**

The Proposed Program would not be anticipated to conflict with zoning for forest land. No zoning for forest land or timberland was identified in the Program area (Stanislaus County 2015) and Stanislaus County had no land classified as Timberland Protection Zone as of 2002 (Shih 2002). There would be **no impact**.

**d) Cause a loss of forest lands – No Impact**

The Proposed Program would not be anticipated to result in the loss of forest lands or the conversion of forest land to non-forest use. Stanislaus County has tracts of hardwood forest, as indicated in its General Plan (Stanislaus County 1994), but these are primarily located west of I-5 and outside the Program area. There would be **no impact** on forest lands.

**e) Cause changes to the existing environment due to conversion of agricultural or forest lands – Potentially Significant Issue**

As mentioned under (a) above, the Proposed Program could indirectly lead to changes in the existing environment, which could have adverse effects on agricultural land by removing obstacles to growth. The Proposed Program would provide additional wastewater treatment capacity and ensure adequate sewer infrastructure and services are available to serve new growth within the City's Sphere of Influence. As Modesto and the outlying areas are generally surrounded and interspersed with Important Farmland, additional urban expansion or growth made possible by the Proposed Program could lead to conversion of agricultural or forest lands, resulting in a **potentially significant** impact. This issue will be investigated further in the EIR.

<b>III. AIR QUALITY:</b> Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of applicable air quality plans?	X		
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	X		
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)?	X		
d) Expose sensitive receptors to substantial pollutant concentrations?	X		
e) Create objectionable odors affecting a substantial number of people?	X		

### Explanations

**a-d) Conflict with air quality plans, Violate Air Quality Standards, Result in Cumulatively Considerable Increase of Criteria Pollutants, Expose Sensitive Receptors to Substantial Pollutant Concentrations - *Potentially Significant Issues***

The Proposed Program would be located in Stanislaus County, which is one of eight counties that comprise the San Joaquin Valley Air Pollution Control District (SJVAPCD) and the San Joaquin Valley Air Basin (Basin). The County's portion of the Basin has been designated as nonattainment for both the federal and State ozone and particulate matter 2.5 (PM<sub>2.5</sub>) standards, and for the State particulate matter 10 standard (CARB 2015, USEPA 2016). The Basin, within Stanislaus County, is in attainment or unclassified for all other criteria pollutants. The SJVAPCD has developed air quality plans for ozone and PM<sub>2.5</sub>.

The Proposed Program's construction activities would have the potential to emit PM from ground-disturbing construction activities, and emit ozone precursor pollutants (i.e., reactive organic gases and nitrogen oxides) from fuel combustion by construction equipment, materials delivery and fill hauling vehicles, and construction worker vehicle trips. In addition, diesel PM, a toxic air contaminant, would be emitted from equipment and vehicles using diesel as a fuel source. These construction-related emissions could occur near or adjacent to sensitive receptors. These impacts would be **potentially significant**. This issue will be investigated further in the Proposed Program EIR.

The Program area is not within an area identified as likely to contain naturally occurring asbestos (NOA), which is a toxic air contaminant. Therefore, it is unlikely that the Program's ground-disturbing activities would result in any NOA emissions.

In the long-term, given the close proximity between the City's ranch lands and the Jennings Plant, once construction of the solids handling facilities at the Jennings Plant is complete, operational truck emissions generated by off-hauling biosolids to the City's ranch lands would be substantially less than existing emissions generated from transporting biosolids from the Sutter Plant to the City's ranch lands. While beneficial, this topic would be further evaluated in the EIR.

**e) Create objectionable odors affecting a substantial number of people - *Potentially Significant Issue***

Construction of the Proposed Program components could potentially generate objectionable odors through emissions of diesel particulate matter by construction equipment or potential excavation of organic sediments. It should be noted that the decommissioning of biosolids treatment facilities at the Sutter Plant would generally improve odors generated at this plant. However, for the purposes of this Initial Study, this impact would be **potentially significant**. This issue will be investigated further in the Proposed Program EIR.

<b>IV. BIOLOGICAL RESOURCES:</b> Would the project:	Potentially Significant Issues	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 Wildlife 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 Wildlife or U.S. Fish and Wildlife Service?	X		
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?	X		
d) Interfere substantially with the movement of any native resident or migratory 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

### Explanations

- a) Substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species - *Potentially Significant Issues***

Several candidate, sensitive, or special-status species are known to occur in the vicinity of the Program area. These include valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), Swainson's hawk (*Buteo swainsoni*), Central Valley distinct population segment steelhead (*Oncorhynchus mykiss irideus*) and others (CDFW 2016). Additionally, the Jennings Plant is known to support large populations of both migratory and resident bird species (eBird

2016). Program improvements could be located in areas that may potentially support candidate, sensitive, or special-status species.

Potential impacts to candidate, sensitive, or special-status species could occur from direct impacts due to construction or operation of Program components, or from Program-related modification of potential habitat. These impacts would be **potentially significant**. The EIR will evaluate the potential for candidate, sensitive, or special-status species to occur in proposed improvement locations based on known occurrences and habitat requirements of these species. The EIR will also evaluate potential effects of the proposed improvements to those species with the potential to occur within the Program area.

**b) Substantial adverse effect on any riparian habitat or other sensitive natural community - *Potentially Significant Issues***

Riparian habitat potentially occurs in the vicinity of the Program area along the Tuolumne River, Stanislaus River, San Joaquin River, and Dry Creek (tributary to the Tuolumne River). Other sensitive natural communities may also potentially be present in the Program area. Potential impacts to these habitats or communities could occur due to construction and/or operation of proposed CIPs, such as the proposed third outfall pipeline, which would traverse the Tuolumne River. These impacts are considered **potentially significant** because the Program could result in degradation or losses of ecologically sensitive natural communities. The EIR will further evaluate this impacts by mapping sensitive natural communities in the Program area and analyzing the potential for Program activities to impact these communities.

**c) Substantial adverse effects on federally protected wetlands - *Potentially Significant Issues***

Federally protected wetlands and waters exist in and along the Tuolumne River, Stanislaus River, San Joaquin River, and Dry Creek. Other surface waters or wetland features may potentially exist in the Program area. Activities associated with the Proposed Program could result in the disturbance or loss of jurisdictional wetland and aquatic communities.

This impact is considered **potentially significant** because it could result in degradation or losses of wetlands and aquatic habitats, including jurisdictional wetlands and other waters.

The EIR will further evaluate the potential for and the magnitude of impacts Program-related impacts on wetlands. This evaluation will be based on Program-specific design and construction details to be developed during the EIR process.

**d) Substantial interference with wildlife movement, established wildlife corridors, or the use of native wildlife nursery sites - *Potentially Significant Issues***

The Proposed Program could potentially interfere with breeding or migration of wildlife species. Specifically, if construction of Program components occurs during the breeding season for migratory species, impacts to these species could potentially occur. These impact would be **potentially significant** and these impacts will be further evaluated in the EIR.

**e) Conflict with local policies or ordinances protecting biological resources -  
*Potentially Significant Issues***

The Proposed Program could potentially conflict with local policies or ordinances protecting biological resources. This could result in a **potentially significant** impact. The EIR will evaluate whether proposed Program activities would be in conflict with local policies and ordinances protecting biological resources.

**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***

The Proposed Program would not occur within the area covered by an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan. Thus the Proposed Program would not conflict with the provisions of any of these types of plans. There would be **no impact**.

<b>V. CULTURAL RESOURCES:</b> Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	X		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	X		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	X		
d) Disturb any human remains, including those interred outside of formal cemeteries?	X		
e) Cause a substantial adverse change in the significance of a tribal cultural resource as defined in §21074?	X		

### Explanations

#### **a-b) Adverse change in the significance of a historical resource or an archaeological resource - *Potentially Significant Issues***

Historical resources, as defined in PRC 15064.5, include, but are not limited to, any resource that is listed, or is eligible for listing, in the California Register of Historical Resources (CRHR); is included in a local register of historical resources; or any object, building, structure, site, area, place, record, or manuscript determined to be historically significant by a lead agency. Furthermore, historical resources, defined under PRC 5024.1, include resources listed, or eligible for listing, in the National Register of Historical Places, State Historical Landmarks and points of historical interest. The Modesto General Plan Update (City of Modesto 2008) indicates that there are a large number of resources located within the City, and thus the current Program area meets these criteria.

Furthermore, there is potential for the discovery of new historical resources of an archaeological nature within the Program area, particularly within the footprint of the proposed third outfall. Potential impacts to historical resources would occur if these resources are present and would be physically disturbed by the Proposed Program construction activities (e.g., from direct ground disturbance, or vibrations from ground disturbance). Impacts on resources which cause de-listing from the CRHR, or render the resources ineligible for listing in the CRHR, would also be considered significant. These impacts would be **potentially significant**.

The EIR will compare the locations of currently known or newly identified historical resources with the proposed actions identified by the Program to evaluate potential effects to those resources.



**c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature - *Potentially Significant Issues***

The City of Modesto is underlain by the Modesto Formation, which is known to contain vertebrate fossil remains; and is, therefore, considered sensitive for containing paleontological resources (City of Modesto 2009). As a result, ground disturbing activities, particularly with the construction of the proposed third outfall, has the potential to encounter such resources. This impact would be **potentially significant**. This topic will be further evaluated in the EIR.

**d) Disturbance of any human remains, including those interred outside of formal cemeteries - *Potentially Significant Issues***

Human remains are not currently known to exist within the locations of Program CIPs; however, they may be present without any surface manifestation and, as a result, could be disturbed by the Proposed Program's activities. This impact would be **potentially significant**. The EIR will further address the potential presence of human remains and the possibility of impacting human remains during construction.

**e) Adverse change in the significance of a tribal cultural resource as defined in PRC 21074 - *Potentially Significant Issues***

The Proposed Program is within a geographic area associated with the Northern Valley Yokuts tribes who have a traditional and cultural affiliation with the region. Assembly Bill 52, which was enacted on July 1, 2015, requires that a State lead agency consult with California Native American tribes with a traditional and cultural affiliation to a project (or program) area in order to determine if any tribal cultural resources (TCRs) would be affected by the proposed project (or program). PRC 21074 defines TCRs as resources that are historical resources under CCR 15064.5; cultural landscapes that meet the criteria of CCR 15064.5; and as unique archaeological sites pursuant to PRC 21083.2. There is the potential for TCRs to be located in the Proposed Program area and for the Program to have an adverse change to any such resources.

The City will consult with local tribes about the presence of TCRs within the Program area and, should any be identified, the protection of TCRs from Program-related actions. The consultation efforts and the identification of TCRs, if present, will be analyzed in the EIR.

VI. GEOLOGY AND SOILS: Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death related to:			
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 risks to life or property?	X		
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater?		X	

### Explanations

**a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**

**i) Seismic-related rupture of a known earthquake fault - *No Impact***

The Proposed Program is not located within a Alquist-Priolo designated hazard zone. The two nearest active faults are the Greenville Fault (approximately 23 miles west) and Ortigalita Fault (approximately 21 miles southwest) (CGS 2010). Since there are no known faults in the in the Program area, there would be **no impact** from fault rupture.

**ii) Strong seismic ground shaking – *Less than Significant***

Due to the significant distance to active faults and the underlying geologic and soil conditions, the Central Valley generally experiences lower levels of more infrequent ground shaking than many other regions of California. In Stanislaus County, the level of seismic ground shaking decreases from 'High' risk along the western border of the County and the foothills of the Diablo Range, to 'Moderate' risk in the central part of the County, to 'Low' risk in the eastern portion (CGS 2008). The Program area lies within the Central portion of the County and is considered 'Moderate' risk for earthquake shaking potential. Additionally, the Proposed Program would be required to comply with California Building Codes, reducing any adverse effects to structures or people to a level that is **less than significant**.

**iii) Seismic-related ground failure, including liquefaction - *Potentially Significant Issues***

Liquefaction is the temporary transformation of saturated and very low cohesion, or cohesionless, soils into a viscous liquid as a result of ground shaking. Liquefaction may occur in water-saturated sediment during moderate to great earthquakes. The potential for liquefaction to occur depends on soil composition, soil saturation levels, and intensity and duration of seismic ground shaking. As several Program improvements would be located near major surface waterways, such as the Tuolumne River and San Joaquin River, the potential for the presence of a high water table and sandy, liquefiable soils exists. Therefore, impacts related to seismic-related ground failure, including liquefaction would be **potentially significant**. This issue will be investigated further in the EIR.

**iv) Landslides - *No Impact***

The floor of the Central Valley where the project sites are located are relatively flat with only minor changes in topography. Landslides are not likely to occur on or near any of the improvement sites. There would be **no impact** related to landslide effects.

**b) Substantial soil erosion or the loss of topsoil - *Potentially Significant Issues***

The Proposed Program may include grading, excavation, trenching, or other construction-related activities that leave soils exposed to erosion. In addition, some improvements like the proposed third outfall may involve removing a substantial volume of topsoil. Excavated spoils, depending upon how they are disposed of, may be susceptible to erosion. Therefore, these impacts are considered **potentially significant** and will be investigated further in the EIR.

**c) Location on a geologic unit or soil that is unstable or that would become unstable as a result of the Proposed Project and potentially result in an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse - *Potentially Significant Issues***

As described above, the Program area is located in an area that is relatively flat with only minor changes in topography; landslides are not likely to occur on any of the proposed sites. For any improvement sites near Stanislaus River, Tuolumne River, or other surface waterbodies, such

as the proposed third outfall, construction-related ground-disturbing or excavation activities could alter the soil stability in those immediate locations. Excavation and trenching for the outfall pipeline may create unstable slopes. This impact related to soil instability is considered **potentially significant** and will be investigated further in the EIR.

**d) Location on expansive soil, creating substantial risks to life or property -**  
*Potentially Significant Issues*

Soils that contain a relatively high percentage of clay minerals have the potential to shrink and swell with changing moisture conditions. The Proposed Program includes numerous improvement sites throughout central Stanislaus County. Underlying soil conditions and composition at each site is highly variable. Impacts related to expansive soils are considered **potentially significant** and will be further examined further in the EIR.

**e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater -** *No Impact*

The Proposed Program includes various improvements focused on repairing and upgrading the existing sewer infrastructure, decommissioning of wastewater treatment facilities at the Sutter Plant, and upgrading wastewater treatment facilities at the Jennings Plant. The Program does not involve construction of septic tanks or alternative wastewater disposal systems. Therefore, there would be **no impact** related to the suitability of soils to support septic tanks or alternative disposal systems.

<b>VII. GREENHOUSE GAS EMISSIONS:</b> Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment?	X		
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs?	X		
c) Encourage activities that result in the use of substantial amounts of fuel or energy, or use these resources in a wasteful manner?	X		

### Explanations

**a) Generate a net increase in GHG emissions which may have a significant impact on the environment - *Potentially Significant Issues***

The Proposed Program would generate short-term direct emissions of GHGs during construction activities through the combustion of fossil fuels by construction equipment, worker vehicles and construction-related trucks. During operation, the Proposed Program could directly emit GHGs through a variety of stationary (i.e., fossil-fueled mechanical equipment) and mobile (worker or equipment vehicles) sources. Furthermore, potential energy use by electrical equipment for the Proposed Program could indirectly emit GHGs if energy sources derive from fossil fuel consumption. Therefore, the Proposed Program would generate a net increase in GHG emissions that would have a **potentially significant** impact.

The EIR will further evaluate this topic, based on available design, operation, and construction details, and make an impact determination based upon appropriate guidance and/or applicable GHG emissions impact thresholds.

**b) Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs - *Potentially Significant Issues***

As described above, the Proposed Program's construction and operation would directly and possibly indirectly result in GHG emissions. If these GHG emissions exceed established thresholds or if other aspects of the Proposed Program (including its design or operation) conflicted with goals and objectives identified in the adopted plans, policies, or regulations, this would result in a potentially significant impact. Plans potentially applicable to the Proposed Program include the SJVAPCD's *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA* (SJVAPCD 2009). An assessment of the Proposed Program's consistency with all policies contained in the above-mentioned document has not yet been performed; therefore, this impact is considered **potentially significant**. The EIR will further evaluate this topic.

**c) Encourage activities that result in the use of substantial amounts of fuel or energy, or use these resources in a wasteful manner – *Potentially Significant Issues***

Because the specific fuel or energy use requirements for the Proposed Program's construction and/or operation have not been yet evaluated, the potential for the Proposed Program to use substantial amounts of fuel or energy, or use these resources in a wasteful manner is considered **potentially significant**. The EIR will further evaluate this topic. The EIR analysis will consider the Proposed Program's short-term and long-term fuel and energy use compared to the existing energy use, identify potential energy sources (i.e., renewable), and determine if fuel or energy resources would be used in a wasteful manner or in substantial amounts.

<b>VIII. HAZARDS AND HAZARDOUS MATERIALS:</b> Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, storage 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 0.25 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) Be located within an airport land use plan area or, where such a plan has not been adopted, be within 2 miles of a public airport or public use airport and result in a safety hazard for people residing or working in the study area?	X		
f) Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the study area?	X		
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	X		
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?			X

### Explanations

**a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials – *Potentially Significant Issue***

Once construction is complete, operation of proposed wastewater treatment plant facilities and improvements would likely involve routine transport, use, or disposal of hazardous materials. In addition, some proposed facilities (e.g., lift stations) may require backup generators and storage of diesel fuel, which is a hazardous material. Construction of the proposed CIPs also would

involve use of heavy equipment which would require hazardous materials, such as fuel, lubricant, and other materials. It is anticipated that standard mitigation measures and compliance with existing hazardous waste regulations would be sufficient to prevent a significant impact from such use of hazardous materials. However, this impact is considered **potentially significant** and will be investigated further in the EIR.

**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 – *Potentially Significant Issue***

As described under (a) above, the Proposed Program may include improvements that require backup generators and storage of diesel fuel. Construction of the proposed CIPs would also require use and storage of hazardous materials, such as fuel, lubricant, and other materials. Storage and use of such hazardous materials could potentially create a significant hazard to the public or the environment through upset and accident conditions (e.g., if storage containers were to leak or rupture, or hazardous materials were to otherwise spill), resulting in a significant impact. It is anticipated that standard mitigation measures and compliance with existing hazardous materials regulations would be sufficient to prevent accidental releases of hazardous materials. However, for the purposes of this initial study, this impact is considered **potentially significant**. This issue will be investigated further in the EIR.

**c) Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school – *Potentially Significant Issue***

It is possible that facilities may be installed within 0.25 mile of an existing or proposed school. Storage of diesel fuel on-site for certain improvements or use and storage of hazardous materials during construction of improvements could potentially emit hazardous emissions or otherwise pose a hazard to public health and safety. While it is anticipated that standard mitigation measures and compliance with existing hazardous materials regulations would be sufficient to prevent a significant impact; for the purposes of this initial study, this impact is considered **potentially significant**. This issue will be investigated further in the EIR.

**d) Located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, create a significant hazard to the public or the environment – *Potentially Significant Issue***

Because the exact locations of proposed facilities and improvements are not yet known, it is possible that some improvements may be located on a site that is included on a list of hazardous materials sites and thereby create a significant hazard to the public or the environment. While the Proposed Program would not include residences or occupied buildings (facilities would generally be operated remotely), if facilities were to be located on a hazardous materials site, trenching and excavation activities during construction could potentially expose workers and the public to contaminated soil or emissions, which could result in a significant impact. This impact is considered **potentially significant**. This topic will be investigated further in the EIR.



- e) Located within an airport land use plan area, or where such a plan has not been adopted, or be within 2 miles of a private or public airport and result in a safety hazard for people residing or working in the study area – *Potentially Significant Issue***

Proposed improvements may be located within an airport land use plan area or within 2 miles of a public or private airport. Airports within the Program area potentially include the Modesto City-County Airport and the Turlock Airpark (Stanislaus County 2014). Given that some facilities may involve storage of hazardous materials, the facilities may be an incompatible land use and thereby create a safety hazard for people residing or working the area (Stanislaus County 2014), depending on the distance from the airports. As such, this impact is considered **potentially significant**. This issue will be evaluated further in the EIR.

- f) Create a safety hazard for people working in the area due to the presence of a private airstrip – *Potentially Significant Issue***

It is possible that proposed CIPs could be located in the vicinity of a private airstrip. As described under (e) above, if that were the case, some improvements could potentially create a hazard to people residing or working in the area, depending on their proximity to the airstrip. This issue is considered **potentially significant** and will be evaluated further in the EIR.

- g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan – *Potentially Significant Issue***

The Proposed Program may include pipelines within the public right-of-way and other facilities that may require temporary closure of at least one lane of traffic during construction. Depending on the specific location of the proposed facilities and the construction activities required, effects on roads or building ingress and egress could potentially impede the movement of emergency response vehicles or otherwise interfere with an emergency response plan or emergency evacuation plan. Once constructed, proposed CIPs are not anticipated to have any adverse effects with respect to implementation of emergency response plans. However, for the reasons previously described, this impact is considered **potentially significant** and these topics will be investigated further in the EIR.

- 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 – *No Impact***

The Proposed Program would be located in urban and rural areas surrounded by agricultural lands. There are no wildlands in the Program area; and therefore, there is no potential for people or structures to be exposed to a significant risk of loss, injury, or death involving wildland fires. There would be **no impact**.

<b>IX. HYDROLOGY:</b> Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	X		
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 ground water table level (for example, 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)?	X		
c) Substantially alter the existing drainage patterns of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	X		
d) Substantially alter the existing drainage patterns of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	X		
e) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	X		
f) Otherwise substantially degrade water quality?	X		
g) Place housing within a 100-year flood-hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?			X
h) Place within a 100-year flood-hazard area structures which would impede or redirect flood flows?	X		
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?	X		
j) Inundation by seiche, tsunami, or mudflow?			X

## Explanations

**a) Violate any water quality standards or waste discharge requirements - *Potentially Significant Issues***

Construction of proposed facilities and improvements would involve excavation, grading, and use of heavy construction equipment, all of which would have the potential to cause soil erosion and sedimentation to local waterways. Use and storage of hazardous materials during construction could also result in water contamination (e.g., from leaking or spills) without adequate safeguards. Over the long term, however, the proposed CIPs would be anticipated to improve water quality by reducing the potential for release of untreated sewage during flooding events at the Sutter Plant. This impact would be **potentially significant** and will be investigated further in the EIR.

**b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or lowering of the local groundwater table level – *Potentially Significant Issue***

The Proposed Program would not require or use substantial groundwater supplies. Construction of the proposed CIPs may require some water supplies for dust control and other purposes, but these water requirements would not be substantial, such as to deplete groundwater supplies or lower the water table, if they were to be obtained from groundwater sources. The Proposed Program could potentially interfere with recharge of groundwater to some degree by increasing impervious surface area (e.g., from lift station buildings). In addition, construction of some proposed CIPs would involve substantial excavation work (e.g., the proposed third outfall), which could potentially interfere with groundwater supplies. This impact is considered **potentially significant** and will be investigated further in the EIR.

**c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, resulting in substantial erosion or siltation on-site or off-site, or create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff – *Potentially Significant Issues***

The Proposed Program would not alter the course of any stream or river, but may change the existing drainage patterns at specific improvement sites. As noted under (b) above, proposed lift station facilities and other wastewater treatment facilities would result in an increase of impervious surfaces, and could therefore, increase the amount of runoff at a given site or otherwise change patterns of drainage and infiltration. It is not anticipated that these effects would be substantial since many improvements would occur in developed areas. Nonetheless, this impact is considered **potentially significant** and will be investigated further in the EIR.

- d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff resulting in flooding on-site or off-site – Potentially Significant Issues**

As described under (c) above, the Proposed Program may alter the existing drainage patterns of specific Program sites through addition of impervious surfaces, through these effects are not anticipated to be substantial. It is not anticipated that the amount of increased surface runoff generated from proposed CIPs would be sufficient to result in flooding on-site or off-site. However, for the purposes of this analysis, this issue is considered **potentially significant** and will be investigated further in the EIR.

- e) Create runoff that would exceed the existing stormwater systems – Potentially Significant Issues**

As described under (c) and (d) above, the Proposed Program would include construction of impervious facilities (e.g., lift stations and wastewater treatment facilities) that may increase the amount of surface runoff. It is not anticipated that the amount of increased runoff that may be generated by the Proposed Program would be sufficient to exceed the capacity of existing stormwater systems. However, this issue is considered **potentially significant** and will be investigated further in the EIR. The Proposed Program would also include modifications to existing stormwater systems (e.g., removal of cross-connections with the wastewater collection system), but these modifications would be designed to maintain adequate stormwater collection and conveyance capacity.

- f) Substantially degrade water quality – Potentially Significant Issue**

Apart from the potential construction-related water quality impacts discussed under (a) above, the Proposed Program would not be anticipated to substantially degrade water quality. Over the long term, the proposed improvements (e.g., removing some storm drain cross connections with stormwater sewers) would be anticipated to improve water quality through reduced potential for release of untreated sewage during wet weather events. Nevertheless, this issue is considered **potentially significant** and will be investigated further in the EIR.

- g) Place housing within a 100-year flood hazard area, as mapped on a federal flood hazard boundary or flood insurance map or other flood hazard delineation map - No Impact**

The Proposed Program would not involve placement of housing within a flood hazard area. Therefore, criterion g) is not applicable to the Proposed Program. **No impact** would occur.

- h) Place structures within a 100-year flood hazard area resulting in impeding or redirect flood flows – Potentially Significant Issue**

It is possible that some proposed improvements may be located within a 100-year flood hazard area, as portions of the Program area are within the 100-year floodplain (e.g., near the Sutter Plant). Many improvements would be low-profile or underground (e.g., sewer pipelines) and

some improvements would involve flood proofing wastewater treatment facilities (e.g., the primary effluent pump station would be replaced with a new outfall pump station above the 100-year flood elevation). While no new structures are anticipated to substantially impede or redirect flood flows, this impact is considered **potentially significant** impact. This issue will be evaluated further in the EIR.

**i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding resulting from the failure of a levee or dam –**  
*Potentially Significant Issue*

Based on a review of the dam inundation map included in the Stanislaus County General Plan (1994), it is possible that some improvement sites may be located in a dam inundation area, and therefore, some facilities may be subject to significant loss if an upstream dam were to fail. Some improvements could potentially be subject to flooding due to levee failure (e.g., overtopping of the Tuolumne River during storm events). In the unlikely event of dam or levee failure, proposed aboveground facilities could be compromised during such an event. It is anticipated that proposed CIPs would be designed to withstand natural hazards, such as levee or dam failures. For the purposes of this initial study, this issue is considered **potentially significant** and will be evaluated further in the EIR.

**j) Contribute to inundation by seiche, tsunami, or mudflow – No Impact**

Because the Proposed Program would be located in the Central Valley of California, not near any lakes or other large bodies of water, there would be no potential for seiche or tsunami in the Program area. The topography of the area also is generally flat and mudflow is not a noted hazard in the area. **No impact** would occur.

<b>X. LAND USE AND PLANNING:</b> Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Physically divide an established community?		X	
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?	X		
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?			X

**Explanations**

**a) Divide an established community – *Less than Significant***

The proposed Program would occur within Modesto and other outlying service areas, including Empire, North Ceres, and other unincorporated areas of Stanislaus County. Proposed CIPs would involve improvements to the City’s collection system (e.g., upgraded sewers and lift stations), decommissioning of wastewater treatment facilities at the Primary Plant, construction of a new primary effluent outfall, and various modifications to the Secondary Plant. Construction of these improvements could result in temporary noise disturbances, increases in local traffic, and increases in air pollutant emissions for nearby sensitive receptors. However, construction of these CIPs would be short-term and phased over the next 20 years. The new outfall would be installed belowground and would traverse predominantly open space agricultural lands and thus not divide an established community. Additionally, given that the goal of the proposed Program is to accommodate wastewater treatment and sewer collection needs for customers throughout the above-mentioned communities, impacts related to dividing an established community would not be substantial. This impact would be **less than significant**.

**b) Conflicts with land use plans or policies – *Potentially Significant Issues***

The Proposed Program would include a series of CIPs that involve repair and replacement of aging collection and wastewater infrastructure, decommissioning of wastewater treatment facilities at the Primary Plant, and construction of new wastewater infrastructure at the Secondary Plant. These CIPs would be implemented to address existing deficiencies and capacity needs for the City’s wastewater treatment system and collection system through 2035. These improvements are also expected to provide sufficient sewer collection and wastewater treatment services for new growth anticipated in the City’s Urban Area General Plan. As such, the Proposed Program would generally support general plan policies that call for safe and reliable wastewater collection and treatment services.

In order to implement the Proposed Program, temporary and/or permanent easement acquisitions may be required to ensure the City has adequate right-of-way and access to the

various CIP sites. Depending on where the CIPs are proposed to occur, some easements may need to be acquired from Modesto Irrigation District and Turlock Irrigation District. Until this issue is investigated further, impacts related to conflicts with land use plans or policies is considered **potentially significant**. The EIR will further evaluate this topic.

**c) Conflicts with any habitat conservation plan or natural community conservation plan - *No Impact***

As described in Section IV, *Biological Resources*, the Proposed Program would not be located in an area covered by a habitat conservation plan or natural community conservation plan. As such, no conflicts with such plans would occur and there would be **no impact**.

XI. MINERAL RESOURCES: Would the project:	Potentially Significant Issues	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

**Explanation**

**a-b) Loss of availability of mineral resources - *No Impact***

Based on review of the Stanislaus County General Plan (1992) and California Department of Conservation Surface Mining and Reclamation Act Mineral Lands Classification mapping (CDOC 2016), there are no known mineral resource zones, historic or active mines or quarries within the Program area. In addition, construction and operation of the proposed CIPs would not directly affect mineral production sites or prevent future availability of mineral resources. As a result, the Proposed Program would have **no impact** on mineral resources.



<b>XII. NOISE:</b> Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	X		
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	X		
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	X		
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above existing levels without the project?	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 expose people residing or working in the project area to excessive noise levels?	X		
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	X		

### Explanations

**a-d) Excessive noise levels, excessive groundborne vibration, or substantial temporary or permanent increase in noise levels - *Potentially Significant Issue***

The Proposed Program's construction activities would require the operation of heavy construction equipment in the Program area, which would temporarily increase noise and possibly groundborne vibration levels. Such noise and/or vibration needs to be evaluated to determine the extent to which it would be audible at properties adjacent to the Program work area. In addition, heavy trucks accessing the Program construction sites would temporarily increase traffic noise levels along their routes, and would also be potentially audible at properties along the construction truck routes. Although the construction generated noise and/or vibrations would be short-term and temporary, increased levels could potentially exceed the construction noise limits established in the local noise ordinances.

In addition, the Proposed Program's operation would potentially generate short-term or permanent noises through the use of mechanical equipment (e.g., pumps or generators), and maintenance-related worker vehicle trips to program sites.

This impact would be **potentially significant**. The EIR will further evaluate this topic, based on available construction, operation, and design details.

**e-f) Expose people residing or working at a project site to excessive noise levels by locating a project within an airport land use plan area, or, within 2 miles of a public or private airport – *Potentially Significant Issue***

As described in Section VIII, *Hazards and Hazardous Materials*, the proposed CIPs may be located within an airport land use plan area or within 2 miles of a public or private airport (the exact locations of all improvements are not yet known). Airports within the study area potentially include the Modesto City-County Airport and the Turlock Airpark (Stanislaus County 2014). The Proposed Program would not involve the construction of any housing or offices. However, construction or maintenance workers could be exposed to excessive noise levels if project sites were located near airports. This impact would be potentially significant. The EIR would further evaluate the potential for the Program's proximity to an airport to result in excessive noise exposure.

XIII. POPULATION AND HOUSING: Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Induce substantial 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 housing, necessitating the construction of replacement housing elsewhere?			X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?			X

**Explanations**

**a) Induce population growth, either directly or indirectly – *Potentially Significant Issue***

Throughout the Proposed Program’s construction phase, workers would be temporarily employed at CIP sites. It is anticipated that regional labor could meet the construction workforce requirements. While some workers might temporarily relocate from other areas, the increase would likely be minor and short-term. It is anticipated that existing City of Modesto staff would conduct long-term operation and maintenance of the project facilities. The Program would not result in the construction of new homes and it may involve construction of new access roads to individual project sites. No new long-term employment opportunities or substantial population growth would occur in the project area due to construction of the Program.

One of the objectives of the Proposed Program is to ensure adequate wastewater infrastructure and services are available to serve its existing service area and new growth within the City’s Sphere of Influence. As such, although the Proposed Program would not include any residential housing or businesses, it would remove insufficient wastewater treatment capacity and sewer collection capacity as potential obstacles to growth, and thereby could have an indirect effect on population growth within the Program area. This issue is considered **potentially significant** and will be investigated further in the EIR.

**b) Displace existing housing – *No Impact***

The proposed CIPs would be constructed within the public right-of-way or on parcels owned by the City. The Proposed Program would not be anticipated to displace any existing housing. **No impact** would occur.

**c) Displace existing populations – *No Impact***

As described under (b) above, the proposed CIPs would be constructed primarily within the public right-of-way and would not be anticipated to displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. **No impact** would occur.

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

### Explanations

#### a-b) Need for additional or physically altered fire and police services – *Less than Significant*

As noted in Section XIII, *Population and Housing*, above, construction of the proposed project would employ construction workers at the project site, which would likely come from the regional labor force. While some construction workers could temporarily relocate from other areas, the project would not result in a substantial increase in the local population. During construction, potential incidents could require law enforcement, fire protection or emergency services. However, such increases in incidents would not be anticipated to be of a magnitude that they would adversely affect response times or other performance objectives of such public services. Potential conflicts with emergency response plans are addressed in Section IX, *Hazards and Hazardous Materials*, and construction-related effects on emergency access are described in Section XVI, *Transportation and Traffic*.

#### c-e) Need for additional or physically altered schools, parks, or other public facilities – *Less than Significant*

As described above, construction of the Proposed Program would employ construction workers likely originating from the regional labor force. While some construction workers could temporarily relocate from other areas, the project would not result in a substantial increase in the local population. In addition, project operations following implementation of the Proposed Project would be similar to current conditions. The Proposed Project impacts on local schools, parks, or other public facilities would be **less than significant**. Potential effects on parks are evaluated in Section XV, *Recreation*, below.

<b>XV. RECREATION:</b> Would the project:	Potentially Significant Issues	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

### Explanations

#### a) Increase use of existing parks or recreational facilities - *Less than Significant*

The Proposed Program is not anticipated to directly generate increased demand for recreational facilities. Potential increased demand for parks or recreation facilities due to potential population growth are addressed in Section XIII, *Population and Housing*. In the event that construction of any proposed CIPs occur near or at existing parks or recreational facilities, the temporary closure of these facilities could result in a short-term increase in use of other nearby parks and recreational facilities. However, the Proposed Program would not be expected to substantially increase the use of any existing parks or recreational facilities such that physical deterioration of those facilities would occur or be accelerated. This impact would be **less than significant**.

#### b) Creation of new or altered recreational facilities – *No Impact*

The Proposed Program does not include recreational facilities and would not directly require the construction or alteration of any such facilities. Potential increased needs for new or altered parks or recreation facilities due to potential population growth are addressed in Section XIII, *Population and Housing*. There would be **no impact**.

<b>XVI. TRANSPORTATION/TRAFFIC:</b> Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
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?	X		
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?	X		
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?			X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	X		
e) Result in inadequate emergency access?	X		
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?	X		

### Explanations

#### a-b) Conflict with applicable circulation plans, ordinances or policies or conflict with an applicable congestion management program - *Potentially Significant Issues*

Construction of the proposed CIPs would result in a temporary increase in roadway traffic within the Program area and in the broader Stanislaus County. In addition, construction of some improvements may require temporary road or lane closures and/or would be conducted within the road right-of-way. These activities could potentially conflict with applicable circulation plans, ordinances or policies or congestion management plans. This impact would be **potentially significant**. This topic will be further investigated in the EIR.

Currently, biosolids from the Sutter Plant are trucked from the sludge drying beds to 2,450 acres of City-owned ranch land near the Jennings Plant. Once construction of the new solids handling

facilities at the Jennings Plant is completed, the length of truck trips associated with hauling biosolids from the drying beds to the City's ranch lands, would be substantially less than existing conditions. As such, in the long-term, operational traffic generated by the Program would be less than existing conditions.

**c) Change in air traffic patterns - *No Impact***

The proposed CIPs may be constructed near airports. However, some proposed facilities and improvements would be below ground (e.g., pipelines) or not of a substantial height (e.g., pump station buildings that are approximately one story) such that the Proposed Program would not interfere with any air traffic patterns. There would be **no impact**.

**d-e) Increased hazards due to design features and inadequate emergency access - *Potentially Significant Issues***

As described above in the a-b) discussion, construction of proposed CIPs could temporarily increase traffic or require temporary road or lane closures. Such closures could increase or cause potential road hazards or interfere with emergency access. In addition, the presence of slow-moving equipment and heavy vehicles along local roads could result in temporary safety hazards. Operation of the Proposed Program would not be anticipated to affect or cause potential road hazards or emergency access. For the reasons described above, these impacts would be **potentially significant** and will be investigated further in the EIR.

**f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities – *Potentially Significant Issues***

The Proposed Program's construction activities, including potential construction activities within the public right-of-way, could potentially conflict with adopted non-motorized transportation plans. Potentially applicable plans include the City of Modesto's *Non-Motorized Transportation Master Plan* (2006) and the Stanislaus Council of Government's *Non-Motorized Transportation Master Plan* (2013). This impact would be **potentially significant**. The EIR will further address the potential for the Proposed Program to conflict with these and other applicable policies, plans or programs.

<b>XVII. UTILITIES AND SERVICE SYSTEMS:</b> Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable RWQCB?		X	
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?	X		
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?	X		
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?		X	
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	X		
g) Comply with federal, State, and local statutes and regulations related to solid waste?			X

### Explanations

#### a) Exceed wastewater treatment requirements of the RWQCB - *Less than Significant*

The Proposed Program includes improvements to the City's sewer collection system, the City's wastewater treatment facilities, and conveyance infrastructure. Once completed, the Program would accommodate population growth and ensure that wastewater treatment capacity at the Sutter and Jennings Plants is adequate to serve growth in the service area through the year 2035.

During project construction, portable toilets would be provided at the construction work areas. Wastewater generated from construction employees disposed of at either the Sutter Plant or the Jennings Plant in compliance with all State, RWQCB, and local requirements related to sewage disposal. Impacts associated with wastewater treatment requirements would be **less than significant**.



**b) Require the construction of new water or wastewater treatment facilities or expansion of existing facilities – *Potentially Significant Issues***

The Proposed Program involves the construction and expansion of existing wastewater treatment facilities to ensure adequate wastewater treatment for the City's service area. As described throughout this initial study, construction and operation of such facilities could result in **potentially significant** impacts; such effects will be evaluated further in the EIR.

**c) Require the construction of new stormwater drainage facilities or expansion of existing facilities – *Potentially Significant Issues***

The Proposed Program includes improvements to the City's sewer collection system and removing cross connections with stormwater sewers. Other improvements, such as new lift stations and pump stations would create new impervious surfaces that may increase surface runoff near those locations. See Section IX, *Hydrology and Water Quality*, for further discussion of potential stormwater drainage impacts associated with the project during and after project construction. Although such structures are not anticipated to require construction of new stormwater drainage facilities or expansion of such facilities, this impact is considered **potentially significant** and will be investigated further in the EIR.

**d) Have sufficient water supplies available to serve the project from existing entitlements and resources – *Less than Significant***

During construction, a small amount of water would be needed for dust control purposes. Operation of the Proposed Program would may require an incremental increase in water usage but such an increase would unlikely require additional water supply entitlements or resources. This impact would be **less than significant**.

**e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments - *No Impact***

Given that the purpose of the Proposed Program is to address aging wastewater infrastructure and provide a reliable wastewater collection, conveyance, and wastewater treatment to the City's sewer service area, the Program itself would not result in an increased demand for wastewater treatment. There would be **no impact**.

**f) Have available landfill capacity to accommodate the project's solid waste disposal needs - *Potentially Significant Issue***

Project construction would generate solid waste associated with various construction activities.

Construction-related activities would generate waste material during demolition of existing structures, excavation of soils, and installation of new infrastructure. Disposal of all solid waste material would comply with all federal, State, and local statutes and regulations. Where feasible, the excavated soil and demolition debris generated by the project would be recycled, reused, and/or disposed of onsite. Excess material may be transported for disposal at the Fink Road

Sanitary Landfill, located near Crows Landing in Stanislaus County (Stanislaus County 2016) or other nearby solid waste facilities.

Once construction is completed, the Jennings Plant would experience an increase in the total volume of biosolids. However, similar to current operating procedures, the material would be spread on approximately 2,450 acres of City-owned ranch lands near the Jennings Plant. Because no solid waste estimates associated with construction of proposed CIPs are available yet, impacts on landfill capacity are considered **potentially significant**. This topic will be investigated further in the EIR.

**g) Comply with federal, State, and local statutes and regulations related to solid waste - *No Impact***

Any waste generated by construction or operation of the proposed CIPs would be disposed of in compliance with all applicable federal, State, and local regulations regarding solid waste. Therefore, **no impact** would occur.

<b>XVIII. MANDATORY FINDINGS OF SIGNIFICANCE:</b> Does the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
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?	X		
b) 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 the past projects, the effects of other current projects, and the effects of probable future projects.)	X		
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	X		

**Explanations**

**a) Effects on environmental quality, fish or wildlife, and historic resources - Potentially Significant Issues**

Construction activities associated with the various proposed improvements could result in **potentially significant** impacts on special-status plant and animal species as well as cultural and historical resources. These issues will be evaluated further in the EIR.

**b) Cumulative Impacts - Potentially Significant Issues**

As defined by the State of California, cumulative impacts reflect, “the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time” (CEQA Guidelines, § 15355[b]).

The degree to which Program effects would contribute to a significant cumulative impact will be evaluated in the EIR. To meet the adequacy standard established by the CEQA Guidelines section 15130, the EIR will identify past, present, and reasonably probable future projects and programs producing related or cumulative impacts. Other projects or plans in the geographic scope of the Proposed Program may include the City of Modesto’s Water Master Plan Update

and the City of Modesto's Urban General Plan Update. For the purposes of this initial study, cumulative impacts are considered **potentially significant**.

**c) Effects on Human Beings - *Potentially Significant Issues***

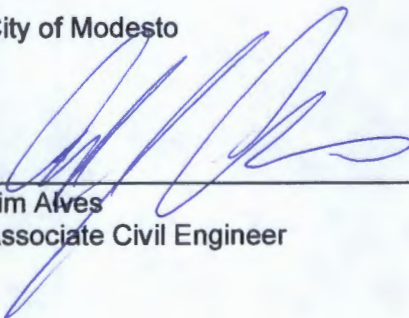
Construction activities of the Proposed Program could result in temporary adverse impacts on people due to effects, such as air pollutant and GHG emissions, noise disturbances, and increased traffic on local roads. Such impacts are considered **potentially significant**. Operation of the Proposed Program is anticipated to substantially benefit people through providing safe and reliable water. This topic will be evaluated further in the EIR.

### C. 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 to the project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
X	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 an impact on the environment that is "potentially significant" or "potentially significant unless mitigated" 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 ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the Project, nothing further is required.

City of Modesto

  
\_\_\_\_\_  
Jim Alves  
Associate Civil Engineer

6-6-16  
\_\_\_\_\_  
Date

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### Aesthetics

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Stanislaus County. 2015. Zoning Designations. Accessed April 6, 2016;  
[http://www.stancounty.com/planning/documents/Zoning\\_Map.pdf](http://www.stancounty.com/planning/documents/Zoning_Map.pdf).

### Air Quality

California Air Resources Board (CARB). 2015. Summaries of Historical Area Designations for State Standards. Accessed April 11, 2016;  
<http://www.arb.ca.gov/desig/changes.htm#summaries>.

U.S. Environmental Protection Agency (USEPA). 2016. California Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants. Accessed April 11, 2016;  
[https://www3.epa.gov/airquality/greenbook/anayo\\_ca.html](https://www3.epa.gov/airquality/greenbook/anayo_ca.html).

### Biological Resources

California Department of Fish and Wildlife (CDFW). 2016. California Natural Diversity Database (CNDDDB). Biogeographic Data Branch. Sacramento, California. April 2016 update.

eBird. 2016. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Modesto Wastewater Treatment Plant. Accessed: April 11, 2016; <http://ebird.org/ebird/hotspot/L246766>.

### **Cultural Resources**

City of Modesto. 2008. Final Master Environmental Impact Report for the Urban Area General Plan Update.

City of Modesto. 2009. 2010 Water System Engineer's Report Draft Program Environmental Impact Report.

### **Geology, Soils and Seismicity**

California Department of Conservation (CDC). 2008. Earthquake Shaking Potential for California. Compiled by Branum, D.; Harmsen, S.; Kalkan, E.; Petersen, M.; and C. Wills. Accessed April 6, 2016; [http://www.conservation.ca.gov/cgs/information/publications/ms/Documents/MS48\\_revised.pdf](http://www.conservation.ca.gov/cgs/information/publications/ms/Documents/MS48_revised.pdf).

California Geological Survey (CGS). 2010. Fault Activity Map. Accessed April 6, 2016; <http://www.quake.ca.gov/gmaps/FAM/Faultactivitymap.html>.

California Department of Water Resources (DWR). 2014. Groundwater Information Center Interactive Map for Subsidence. Accessed: April 6, 2016; <https://gis.water.ca.gov/app/gicima/>.

### **Greenhouse Gas Emissions**

San Joaquin Valley Air Pollution Control District (SJVAPCD). 2009. Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA. Accessed April 11, 2016; [http://www.valleyair.org/Programs/CCAP/CCAP\\_idx.htm](http://www.valleyair.org/Programs/CCAP/CCAP_idx.htm).

### **Hazards and Hazardous Materials**

Stanislaus County, Planning and Community Development Department. 2014. Stanislaus County Airport Land Use Compatibility Plan. Accessed April 7, 2016; <http://www.stancounty.com/planning/pl/act-proj/GPUupdate/ALUCP.pdf>.

### **Hydrology and Water Quality**

Department of Water Resources (DWR). 2004. California's Groundwater, Bulletin 118: San Joaquin Valley Groundwater Basin, Modesto Subbasin. Accessed April 7, 2016; <http://www.water.ca.gov/groundwater/bulletin118/basindescriptions/5-22.02.pdf>.

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Stanislaus County. 1994. General Plan, Chapter 5: Safety. Accessed April 8, 2016; <http://www.stancounty.com/planning/pl/gp/gp-sd-chapter5.pdf>.

**Mineral Resources**

Stanislaus County. 1992. General Plan. Last updated August 12, 2012. Accessed April 6, 2016; <http://www.stancounty.com/planning/pl/general-plan.shtm>.

California Department of Conservation (CDOC). 2016. Surface Mining and Reclamation Act Mineral Lands Classification data portal. Accessed April 6, 2016; <http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html>.

**Noise**

Stanislaus County, Planning and Community Development Department. 2014. Stanislaus County Airport Land Use Compatibility Plan. Accessed April 7, 2016; <http://www.stancounty.com/planning/pl/act-proj/GPUpdate/ALUCP.pdf>.

**Utilities and Service Systems**

Stanislaus County. 2016. Stanislaus County Environmental Resources – Landfill. Webpage. Accessed: April 8, 2016; <http://www.stancounty.com/er/landfill/>.

U.S. Environmental Protection Agency (USEPA). 2016. Summary for Current Landfill Methane Outreach Program and Landfill Gas Energy Project Database - All Landfills. Energy Projects and Candidate Landfills, Landfill Methane Outreach Program. Last updated March. Accessed April 8, 2016; <https://www3.epa.gov/lmop/projects-candidates/>.



**Master Notification list for WWMP/WMP NOP**

Organization	Name	Title	Street Address	City	State	Zip Code	Phone Number	Email	Notes	Send WWMP NOP Only	Send WWMP NOP/IS
Turlock Irrigation District	Casey Hashimoto	General Manager	P.O. Box 949	Turlock	CA	95381-0949	209-883-8222				1
Modesto Irrigation District	Patrick Ryan	Civil Engineering Manager	1231 Eleventh St	Modesto	CA	95352		<a href="mailto:patrick.ryan@mid.org">patrick.ryan@mid.org</a>		1	
City of Ceres	Michael Brinton		2220 Hackett	Ceres	CA	95307		<a href="mailto:Michael.Brinton@ci.ceres.ca.us">Michael.Brinton@ci.ceres.ca.us</a>	The City serves Ceres	1	
City of Turlock	Garner Reynolds	Regulatory Affairs Manager	156 S. Broadway	Turlock	CA	95380		<a href="mailto:greynolds@turlock.ca.us">greynolds@turlock.ca.us</a>	WMP EIR Only	1	
Del Puerto Water District	Anthea Hansen	General Manager	17840 Ward Avenue	Patterson	CA	95363		<a href="mailto:ahansen@delpuertowd.org">ahansen@delpuertowd.org</a>	NVRRWP Partner	1	
City of Riverbank	Michael Riddell	Deputy Development Services Director -Ops	2901 High St	Riverbank	CA	95367				1	
City of Patterson	Mike Willett	Public Works Director	1 Plaza Circle	Patterson	CA	95363		<a href="mailto:MWillett@ci.patterson.ca.us">MWillett@ci.patterson.ca.us</a>	Neighboring agency	1	
City of Waterford	Tim Ogden	City Manager	312 E Street	Waterford	CA	95386			As a courtesy	1	
Empire Sanitary District *			5017 Yosemite Blvd.	Modesto	CA	95357					1
Salida Sanitary District	Mike Gilton	General Manger	P.O. Box 445	Salida	CA	95368			Neighboring sanitary district	1	
Stanislaus LAFCO	Sarah Lytle-Pinhey	Executive Officer	1010 Tenth Street, 3rd Floor	Modesto	CA	95354				1	
StanCOG	Rosa De Leon Park	Executive Director	1111 I Street, Suite 308	Modesto	CA	95354				1	
Stanislaus County	Matt Machado	Stanislaus County Public Works Director	1716 Morgan Rd	Modesto	CA	95358		<a href="mailto:machadom@stancounty.com">machadom@stancounty.com</a>		1	
Stanislaus County	Miguel Galvez	Senior Planner	1010 Tenth Street, 3rd Floor	Modesto	CA	95354				1	
Stanislaus County	Keith Boggs	Assistant Executive Director	1010 10th Street, Suite 6800	Modesto	CA	95354		<a href="mailto:boggsk@stancounty.com">boggsk@stancounty.com</a>		1	
Stanislaus County	Walter Ward	Manager, Water Resources Program	3800 Cornucopia Way, Suite C	Modesto	CA	95358		<a href="mailto:wward@envres.org">wward@envres.org</a>			1
Stanislaus County	Jami Aggers	Director of Environmental Resources	3800 Cornucopia Way, Suite C	Modesto	CA	95358		<a href="mailto:jaggers@envres.org">jaggers@envres.org</a>			1
Stanislaus County Clerk's Office	Lee Lundrigan	County Clerk-Recorder	1021 "I" Street	Modesto	CA	95354					1
Stanislaus County Library	Reference Desk		1500 "I" Street	Modesto	CA	95354					1
Modesto Police Department	Galen Carroll	Chief of Police	600 10th Street	Modesto	CA	95354				1	
Modesto City/County Airport	Mark Germanowski	Airport Manager	617 Airport Way	Modesto	CA	95354				1	

Non-governmental organizations											
The Nature Conservancy	Laura Jensen		555 Capitol Mall, Suite 1290	Sacramento	CA	95814				1	
Stanislaus County Farm Bureau	Wayne Zipser	Executive Manager	1201 L Street, PO Box 3070	Modesto	CA	95353-3070				1	
Audubon California	Meghan Hertel	Working Lands Director	400 Capitol Mall, Suite 1535	Sacramento	CA	95814		<a href="mailto:mhertel@audubon.org">mhertel@audubon.org</a>		1	
Friends of the Tuolumne River	Allison Boucher		1900 NE 3rd Street, Ste 106, PMB 314	Bend	OR	97701				1	
Tuolumne River Trust	Patrick Koepele	Executive Director	829 Thirteenth Street	Modesto	CA	95354				1	

Regulatory Agencies	Name	Title	Street Address	City	State	Zip Code	Phone Number	Email			
U.S. Fish and Wildlife Service	Jana Affonso	Deputy Division Chief, Sacramento Valley Branch	2800 Cottage Way, Room W-2605	Sacramento	CA	95825					1
NOAA National Marine Fisheries	Maria Rea	Assistant Regional Administrator, Central Valley Office	650 Capitol Mall, Suite 5-100	Sacramento	CA	95814					1
Central Valley Flood Protection Board			3310 El Camino Avenue, Room 151	Sacramento	CA	95821					1
San Joaquin Valley Air Pollution Control District	Georgia Stewart	Planning Division	1990 East Gettysburg Avenue	Fresno	CA	93726-0244		<a href="mailto:georgia.stewart@valleyair.org">georgia.stewart@valleyair.org</a>			1
U.S. Army Corp of Engineers, Sacramento District	Kate Dadey	Chief, California South Branch	1325 J Street, Room 1350	Sacramento	CA	95814					1

School Districts	Name	Title	Street Address	City	State	Zip Code	Phone Number	Email			
Empire Union School District			116 N. McClure Rd	Modesto	CA	95357					1
Hart Ransom School District	Matthew Shipley	Superintendent	3920 Shoemaker Ave	Modesto	CA	95358	209-523-9996	<a href="mailto:mshipley@hartransom.org">mshipley@hartransom.org</a>			1
Paradise Elementary School	Heath Thomason	Superintendent/Principal	3361 California Ave	Modesto	CA	95358		<a href="mailto:hthomason@paradiseesd.org">hthomason@paradiseesd.org</a>			1
Salida Union School District		Superintendent	4801 Sisk Rd	Salida	CA	95358		<a href="mailto:kkent@salida.k12.ca.us">kkent@salida.k12.ca.us</a>	WMP EIR Only		1
Sylvan Union School District	Debra Hendricks	Superintendent	605 Sylvan Ave	Modesto	CA	95355		<a href="mailto:dhendricks@sylvan.k12.ca.us">dhendricks@sylvan.k12.ca.us</a>			1
Stanislaus Union School District	Britta M. Skavdahl	Superintendent	2410 Janna Ave	Modesto	CA	95350					1
Riverbank Unified School District			6715 Seventh Street	Riverbank	CA	95367			WMP EIR Only?		1
Shiloh k-8 School			6633 Paradise Rd	Modesto	CA	95358			WMP EIR Only?		1
Orville Wright School	Victoria Kyte	Principal	1602 Monterey Avenue	Modesto	CA	95354					1
Modesto City Schools District	Pam Able	District Superintendent	426 Locust Street	Modesto	CA	95351					1

Fire Districts	Name	Title	Street Address	City	State	Zip Code	Phone Number	Email			
Burbank-Paradise Fire District			1313 Beverly Drive	Modesto	CA	95351					1
City of Ceres Fire Department	Chief	Nicholes	2220 Magnolia St	Ceres	CA	95307					1
Salida Fire Protection District			P.O. Box 1335	Salida	CA	95368			WMP EIR Only		1
Stanislaus Consolidated Fire Protection District			3324 Topeka St.	Riverbank	CA	95367					1
Turlock City Fire Department	Robert Talloni	Chief	244 N. Broadway	Turlock	CA	95380-5454			WMP EIR Only		1
Turlock Rural Fire District			690 W. Canal Dr	Turlock	CA	95380			WMP EIR Only		1
Woodland Avenue Fire Protection District	Mike Passalacqua	District Chief	3300 Woodland Ave	Modesto	CA	95358					1
Modesto Fire Department	Sean Slamon	Fire Chief	600 11th Street	Modesto	CA	95354					1

**NOTE:** Strike-throughs are mostly from the previous NVRRWP effort from which this list is based, so we need to review the entire list for those that apply to either th WMP or WWMP EIRs

**TOTAL** **39** **11**



**Attachment B:  
State Clearinghouse  
Notice of Preparation Posting**





OPR Home > CEQAnet Home > CEQAnet Query > Search Results > Project Description

### Wastewater Master Plan Update

City	Cross Street	Document Type	Description	Date Received
Modesto		<a href="#">Notice of Preparation</a>	The program involves several improvements to the City of Modesto's collection system such as replacement or construction of new trunk sewers or pump station, new parallel sewers, and removal of storm drain cross connections. Proposed improvements at the Sutter Plant include upgrading the influent pump station, improvements to the headworks facilities, and decommissioning of primary treatment and solids handling facilities. The Program also includes construction of a new third outfall pipeline. At the Jennings plant, the Program includes upgrades to the secondary treatment facilities and construction of new primary treatment and solids handling facilities.	6/10/2016

[CEQAnet HOME](#) | [NEW SEARCH](#)



**Attachment C:  
Public Comments Received**







EDMUND G. BROWN JR.  
GOVERNOR

STATE OF CALIFORNIA  
GOVERNOR'S OFFICE of PLANNING AND RESEARCH  
STATE CLEARINGHOUSE AND PLANNING UNIT



KEN ALEX  
DIRECTOR

Notice of Preparation

June 10, 2016

To: Reviewing Agencies  
Re: Wastewater Master Plan Update  
SCH# 2016062033

Attached for your review and comment is the Notice of Preparation (NOP) for the Wastewater Master Plan Update draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

**Jim Alves**  
City of Modesto  
P.O. Box 642  
1010 Tenth Street  
Modesto, CA 95353

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan  
Director, State Clearinghouse

Attachments  
cc: Lead Agency

**Document Details Report  
State Clearinghouse Data Base**

**SCH#** 2016062033  
**Project Title** Wastewater Master Plan Update  
**Lead Agency** Modesto, City of

---

**Type** NOP Notice of Preparation  
**Description** The program involves several improvements to the City of Modesto's collection system such as replacement or construction of new trunk sewers or pump station, new parallel sewers, and removal of storm drain cross connections. Proposed improvements at the Sutter Plant include upgrading the influent pump station, improvements to the headworks facilities, and decommissioning of primary treatment and solids handling facilities. The Program also includes construction of a new third outfall pipeline. At the Jennings plant, the Program includes upgrades to the secondary treatment facilities and construction of new primary treatment and solids handling facilities.

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**Lead Agency Contact**

**Name** Jim Alves  
**Agency** City of Modesto  
**Phone** 209-571-5557 **Fax**  
**email** jalves@modestogov.com  
**Address** P.O. Box 642  
1010 Tenth Street  
**City** Modesto **State** CA **Zip** 95353

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**Project Location**

**County** Stanislaus  
**City** Modesto  
**Region**  
**Cross Streets**  
**Lat / Long**  
**Parcel No.**  

<b>Township</b>	<b>Range</b>	<b>Section</b>	<b>Base</b>
-----------------	--------------	----------------	-------------

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**Proximity to:**

**Highways** Hwy#: 108,132,99  
**Airports** Modesto City-County Airport  
**Railways** Southern Pacific  
**Waterways** Tuolumne River, San Joaquin River, Stanislaus River  
**Schools** various  
**Land Use** Various

---

**Project Issues** Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Septic System; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Landuse; Growth Inducing; Cumulative Effects

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**Reviewing Agencies** Caltrans, District 10; Caltrans, Division of Aeronautics; Department of Fish and Wildlife, Region 4; California Highway Patrol; Department of Water Resources; Public Utilities Commission; State Water Resources Control Board, Division of Financial Assistance; Resources Agency; Department of Parks and Recreation; Native American Heritage Commission

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**Date Received** 06/10/2016 **Start of Review** 06/10/2016 **End of Review** 07/11/2016

2016062033

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 #

Project Title: Notice of Preparation of a Draft Environmental Impact Report for the Wastewater Master Plan Update

Lead Agency: City of Modesto Contact Person: Jim Alves
Mailing Address: P.O. Box 642 Phone:
City: Modesto Zip: 95353 County: Stanislaus

Project Location: County: Stanislaus City/Nearest Community: Modesto
Cross Streets: Various Zip Code: various
Longitude/Latitude (degrees, minutes and seconds): ... W Total Acres: Various
Assessor's Parcel No.: Various Section: Twp.: Range: Base:
Within 2 Miles: State Hwy #: 108, 132, 99 Waterways: Tuolumne River, San Joaquin River, Stanislaus River
Airports: Modesto City-County Airport Railways: Southern Pacific Schools: various

Document Type:

CEQA: [X] NOP [ ] Draft EIR NEPA: [ ] NOI Other: [ ] Joint Document
[ ] Early Cons [ ] Supplement/Subsequent EIR [ ] Final Document
[ ] Neg Dec (Prior SCH No.) [ ] Draft EIS Other:
[ ] Mit Neg Dec Other:
FONSI JUN 10 2010

Local Action Type:

[ ] General Plan Update [ ] Specific Plan [ ] Rezone
[ ] General Plan Amendment [ ] Master Plan [ ] Prezone
[ ] General Plan Element [ ] Planned Unit Development [ ] Use Permit
[ ] Community Plan [ ] Site Plan [ ] Land Division (Subdivision, etc.) [X] Other: Wastewater System

Development Type:

[ ] Residential: Units Acres
[ ] Office: Sq.ft. Acres Employees
[ ] Commercial: Sq.ft. Acres Employees
[ ] Industrial: Sq.ft. Acres Employees
[ ] Educational:
[ ] Recreational:
[X] Water Facilities: Type wastewater infrastructure MGD
[ ] Transportation: Type
[ ] Mining: Mineral
[ ] Power: Type MW
[ ] Waste Treatment: Type MGD
[ ] Hazardous Waste: Type
[ ] Other:

Project Issues Discussed in Document:

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

Present Land Use/Zoning/General Plan Designation:

Various

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

The Program involves several improvements to the City of Modesto's collection system such as replacement or construction of new trunk sewers or pump station, new parallel sewers, and removal of storm drain cross connections. Proposed improvements at the Sutter Plant include upgrading the influent pump station, improvements to the headworks facilities, and decommissioning of primary treatment and solids handling facilities. The Program also includes construction of a new third outfall pipeline. At the Jennings Plant, the Program includes upgrades to the secondary treatment facilities and construction of new primary treatment and solids handling facilities.

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 and "X".  
If you have already sent your document to the agency please denote that with an "S".

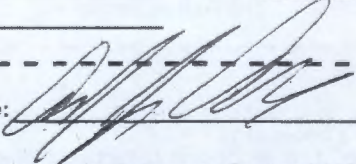
- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Air Resources Board                         | <input checked="" type="checkbox"/> Office of Historic Preservation          |
| <input type="checkbox"/> Boating & Waterways, Department of                     | <input type="checkbox"/> Office of 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 #10                       | <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 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 checked="" 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 type="checkbox"/> Delta Protection Commission                            | <input 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 type="checkbox"/> SWRCB: Water Rights                                 |
| <input checked="" type="checkbox"/> Fish & Game Region #4                       | <input type="checkbox"/> Tahoe Regional Planning Agency                      |
| <input type="checkbox"/> Food & Agriculture, Department of                      | <input checked="" type="checkbox"/> Toxic Substances Control, Department of  |
| <input checked="" type="checkbox"/> Forestry and Fire Protection, Department of | <input checked="" type="checkbox"/> Water Resources, Department of           |
| <input type="checkbox"/> General Services, Department of                        | Other: _____   |
| <input type="checkbox"/> Health Services, Department of                         | Other: _____   |
| <input type="checkbox"/> Housing & Community Development                        |  |
| <input checked="" type="checkbox"/> Native American Heritage Commission         |  |

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

Starting Date June 10, 2016 Ending Date July 10, 2016

-----  
**Lead Agency (Complete if applicable):**

Consulting Firm: <u>Horizon Water and Environment</u>	Applicant: <u>City of Modesto</u>
Address: <u>180 Grande Ave, Suite 1405</u>	Address: <u>P.O. Box 642</u>
City/State/Zip: <u>Oakland, CA 94612</u>	City/State/Zip: <u>Modesto, CA 95353</u>
Contact: <u>Michael Stevenson</u>	Phone: <u>209-577-5200</u>
Phone: <u>510-986-1852</u>	

-----  
Signature of Lead Agency Representative:  Date: 5/9/16

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

**NOP Distribution List**

HK

County: Stanislaus

SCH#

2015062033

Resources Agency

- Resources Agency  
Nadell Gayou
- Dept. of Boating & Waterways  
Denise Peterson
- California Coastal Commission  
Elizabeth A. Fuchs
- Colorado River Board  
Lisa Johansen
- Dept. of Conservation  
Elizabeth Carpenter
- California Energy Commission  
Eric Knight
- Cal Fire  
Dan Foster
- Central Valley Flood Protection Board  
James Herota
- Office of Historic Preservation  
Ron Parsons

- Dept of Parks & Recreation  
Environmental Stewardship Section

California Department of Resources, Recycling & Recovery  
Sue O'Leary

- S.F. Bay Conservation & Dev't. Comm.  
Steve McAdam

- Dept. of Water Resources  
Resources Agency  
Nadell Gayou

Fish and Game

- Depart. of Fish & Wildlife  
Scott Flint  
Environmental Services Division

- Fish & Wildlife Region 1  
Curt Babcock

- Fish & Wildlife Region 1E  
Laurie Harnsberger
- Fish & Wildlife Region 2  
Jeff Drongesen
- Fish & Wildlife Region 3  
Craig Weightman
- Fish & Wildlife Region 4  
Julie Vance
- Fish & Wildlife Region 5  
Leslie Newton-Reed  
Habitat Conservation Program
- Fish & Wildlife Region 6  
Tiffany Ellis  
Habitat Conservation Program
- Fish & Wildlife Region 6 I/M  
Heidi Calvert  
Inyo/Mono, Habitat Conservation Program
- Dept. of Fish & Wildlife M  
Becky Ota  
Marine Region

Other Departments

- Food & Agriculture  
Sandra Schubert  
Dept. of Food and Agriculture
- Depart. of General Services  
Public School Construction
- Dept. of General Services  
Cathy Buck/George Carollo  
Environmental Services Section
- Delta Stewardship Council  
Kevan Samsam
- Housing & Comm. Dev.  
CEQA Coordinator  
Housing Policy Division

Independent Commissions, Boards

- Delta Protection Commission  
Michael Machado

Cal State Transportation Agency CalSTA

- Caltrans - Division of Aeronautics  
Philip Crimmins
- Caltrans -- Planning  
HQ LD-IGR  
Terri Pencovic
- California Highway Patrol  
Suzann Ikeuchi  
Office of Special Projects

Dept. of Transportation

- Caltrans, District 1  
Rex Jackman
- Caltrans, District 2  
Marcelino Gonzalez
- Caltrans, District 3  
Eric Federicks - South  
Susan Zanchi - North
- Caltrans, District 4  
Patricia Maurice
- Caltrans, District 5  
Larry Newland
- Caltrans, District 6  
Michael Navarro
- Caltrans, District 7  
Dianna Watson

- OES (Office of Emergency Services)  
Monique Wilber
- Native American Heritage Comm.  
Debbie Treadway
- Public Utilities Commission  
Supervisor
- Santa Monica Bay Restoration  
Guangyu Wang
- State Lands Commission  
Jennifer Deleong
- Tahoe Regional Planning Agency (TRPA)  
Cherry Jacques

Cal EPA

Air Resources Board

- Airport & Freight  
Cathi Slaminski
- Transportation Projects  
Nesamani Kalandiyur
- Industrial/Energy Projects  
Mike Tollstrup
- State Water Resources Control Board  
Regional Programs Unit  
Division of Financial Assistance
- State Water Resources Control Board  
Cindy Forbes - Asst Deputy  
Division of Drinking Water

- State Water Resources Control Board  
Div. Drinking Water # \_\_\_\_\_

- State Water Resources Control Board  
Student Intern, 401 Water Quality Certification Unit  
Division of Water Quality

- State Water Resources Control Board  
Phil Crader  
Division of Water Rights

- Dept. of Toxic Substances Control  
CEQA Tracking Center

- Department of Pesticide Regulation  
CEQA Coordinator

- Caltrans, District 8  
Mark Roberts
- Caltrans, District 9  
Gayle Rosander
- Caltrans, District 10  
Tom Dumas
- Caltrans, District 11  
Jacob Armstrong
- Caltrans, District 12  
Maureen El Harake

Regional Water Quality Control Board (RWQCB)

- RWQCB 1  
Cathleen Hudson  
North Coast Region (1)
- RWQCB 2  
Environmental Document Coordinator  
San Francisco Bay Region (2)
- RWQCB 3  
Central Coast Region (3)
- RWQCB 4  
Teresa Rodgers  
Los Angeles Region (4)
- RWQCB 5S  
Central Valley Region (5)
- RWQCB 5F  
Central Valley Region (5)  
Fresno Branch Office
- RWQCB 5R  
Central Valley Region (5)  
Redding Branch Office
- RWQCB 6  
Lahontan Region (6)
- RWQCB 6V  
Lahontan Region (6)  
Victorville Branch Office
- RWQCB 7  
Colorado River Basin Region (7)
- RWQCB 8  
Santa Ana Region (8)
- RWQCB 9  
San Diego Region (9)

- Other \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_  
Conservancy



Appendix B

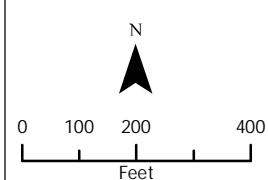
## **Air Quality and Greenhouse Gas Modeling Results**







C:\Users\GIS\Documents\ArcGIS\PROJECTS\15043\_Modesto\_WWMP\_EIR\mxd\ProjectAreas\_and\_Lines\_map2.mxd 3/23/2017 PG



River Trunk Realignment Project		Other Projects	Project Areas
<span style="color: lightblue;">—</span> Alignment A, Open Cut	<span style="color: orange;">—</span> Alignment D, Open Cut	<span style="color: brown;">—</span> Gravity System	<span style="border: 1px solid yellow;"> </span> Jack and Bore C
<span style="color: blue;">—</span> Alignment A, Trenchless	<span style="color: red;">—</span> Alignment D, Trenchless	<span style="color: pink;">—</span> FA, Open Cut	<span style="border: 1px solid blue;"> </span> Jack and Bore D
<span style="color: pink;">—</span> Alignment B, Open Cut	<span style="color: brown;">—</span> OF, Open Cut	<span style="border: 1px solid black;"> </span> Pipelines	<span style="border: 1px solid pink;"> </span> Pump Station Area
<span style="color: limegreen;">—</span> Alignment C, Open Cut	<span style="color: yellow;">—</span> Overflow PS, Trenchless	<span style="border: 1px solid red;"> </span> Gallo Staging Area	<span style="border: 1px solid green;"> </span> Potential Staging Area
<span style="color: green;">—</span> Alignment C, Trenchless			
<span style="color: orange;">—</span> Algnmnt D Inter OF, Open Cut			

**Project Areas and Lines**



PhaseName	OffRoad Equipment Type	Off Road		Usage		Load Factor	Number of Construction Days	Amount of	
		Equipment Unit Amount	Hours per Day	Horsepower	Factor			Horsepower Use (gal/hp-hr)	Gallons of Diesel Use
RTPS - Site Prep	Excavators	1	8	158	0.38	25	31600	1488	
RTPS - Site Prep	Off-Highway Trucks	0	8	402	0.38	25	80400	0	
RTPS - Site Prep	Rubber Tired Loaders	1	8	203	0.36	25	40600	1912	
RTPS - Site Prep	Scrapers	1	8	367	0.48	25	73400	3456	
SPS - Site Prep	Excavators	1	8	158	0.38	11	13904	655	
SPS - Site Prep	Off-Highway Trucks	0	8	402	0.38	11	35376	0	
SPS - Site Prep	Rubber Tired Loaders	1	8	203	0.36	11	17864	841	
Sutter Trunk - Lining	Cranes	1	6	231	0.29	11	15246	718	
Sutter Trunk - Lining	Excavators	2	8	158	0.38	11	13904	1309	
Sutter Trunk - Lining	Off-Highway Trucks	2	8	402	0.38	11	35376	3331	
Sutter Trunk - Lining	Rubber Tired Loaders	1	8	203	0.36	11	17864	841	
Alignment A	Bore/Drill Rigs	1	8	221	0.5	262	463216	21809	
Alignment A	Cranes	1	6	231	0.29	262	363132	17097	
Alignment A	Excavators	1	8	158	0.38	262	331168	15592	
Alignment A	Off-Highway Trucks	1	8	402	0.38	262	842592	39672	
Alignment A	Off-Highway Trucks	0	8	402	0.38	262	842592	0	
Alignment A	Rubber Tired Loaders	1	8	203	0.36	262	425488	20033	
Alignment B	Excavators	2	8	158	0.38	24	30336	2857	
Alignment B	Off-Highway Trucks	2	8	402	0.38	24	77184	7268	
Alignment B	Plate Compactors	1	8	8	0.43	24	1536	72	
Alignment C	Excavators	2	8	158	0.38	89	112496	10593	
Alignment C	Off-Highway Trucks	2	8	402	0.38	89	286224	26952	
Alignment C	Plate Compactors	1	8	8	0.43	89	5696	268	
Alignment D	Excavators	2	8	158	0.38	110	139040	13093	
Alignment D	Off-Highway Trucks	4	8	402	0.38	110	353760	66624	
Alignment D	Plate Compactors	1	8	8	0.43	110	7040	331	
Gravity System	Excavators	2	8	158	0.38	220	278080	26186	
Gravity System	Off-Highway Trucks	5	8	402	0.38	220	707520	166560	
Gravity System	Plate Compactors	1	8	8	0.43	220	14080	663	
SPS - Grading	Cranes	1	6	231	0.29	24	33264	1566	
SPS - Grading	Excavators	1	8	158	0.38	24	30336	1428	
SPS - Grading	Off-Highway Trucks	1	8	402	0.38	24	77184	3634	
SPS - Grading	Rubber Tired Loaders	1	8	203	0.36	24	38976	1835	
RTPS - Grading	Bore/Drill Rigs	1	8	221	0.5	130	229840	10822	
RTPS - Grading	Cranes	1	8	231	0.29	130	240240	11311	
RTPS - Grading	Excavators	2	8	158	0.38	130	164320	15473	
RTPS - Grading	Off-Highway Trucks	1	8	402	0.38	130	418080	19684	
RTPS - Grading	Off-Highway Trucks	1	8	402	0.38	130	418080	19684	
RTPS - Grading	Tractors/Loaders/Backhoes	2	8	97	0.37	130	100880	9499	
SPS - Construction	Excavators	1	8	158	0.38	21	26544	1250	
SPS - Construction	Off-Highway Trucks	2	8	402	0.38	21	67536	6360	
SPS - Paving	Excavators	2	8	158	0.38	24	30336	2857	
SPS - Paving	Off-Highway Trucks	0	8	402	0.38	24	77184	0	
SPS - Paving	Pavers	1	8	130	0.42	24	24960	1175	
SPS - Paving	Rubber Tired Loaders	1	8	203	0.36	24	38976	1835	
SPS - Architectural	Off-Highway Trucks	2	8	402	0.38	5	16080	1514	
SPS - Architectural	Rubber Tired Loaders	1	8	203	0.36	5	8120	382	
RTPS - Construction	Aerial Lifts	1	8	63	0.31	458	230832	10868	
RTPS - Construction	Cranes	1	8	231	0.29	458	846384	39850	
RTPS - Construction	Excavators	1	8	158	0.38	458	578912	27257	
RTPS - Construction	Off-Highway Trucks	0	8	402	0.38	458	1472928	0	
RTPS - Construction	Off-Highway Trucks	2	8	402	0.38	458	1472928	138699	
RTPS - Paving	Excavators	2	8	158	0.38	17	21488	2023	
RTPS - Paving	Off-Highway Trucks	0	8	402	0.38	17	54672	0	
RTPS - Paving	Pavers	1	8	130	0.42	17	17680	832	
RTPS - Paving	Rubber Tired Loaders	1	8	203	0.36	17	27608	1300	
RTPS - Architectural Coating	Off-Highway Trucks	2	8	402	0.38	5	16080	1514	
RTPS - Architectural Coating	Rubber Tired Loaders	1	6	203	0.36	5	6090	287	

<b>TOTAL:</b>	<b>783,163</b>
---------------	----------------

gallons of diesel

Table. Fuel Use Calculations

Phase Name	Number Days in Construction	Worker Trip Number (daily, one-way)	Hauling Trip Number (total for construction phase)	Worker Trip Length	Hauling Trip Length	Worker Fuel Rate (gallon/mile)	Hauling Fuel Rate (gallon/mile)	Worker Fuel Use (gallons)	Hauling Fuel Use (gallons)
RTPS - Site Prep	25	10	2063	10.8	20	0.0460707	0.1810911	249	7472
SPS - Site Prep	11	10	2063	10.8	20	0.0460707	0.1810911	109	7472
Sutter Trunk - Lining	11	5	0	10.8	20	0.0460707	0.1810911	55	0
Alignment A	262	30	0	10.8	20	0.0460707	0.1810911	7822	0
Alignment B	24	10	0	10.8	20	0.0460707	0.1810911	239	0
Alignment C	89	20	0	10.8	20	0.0460707	0.1810911	1771	0
Alignment D	110	20	0	10.8	20	0.0460707	0.1810911	2189	0
Gravity System	220	20	0	10.8	20	0.0460707	0.1810911	4379	0
SPS - Grading	24	10	2063	10.8	20	0.0460707	0.1810911	239	7472
RTPS - Grading	130	20	2063	10.8	20	0.0460707	0.1810911	2587	7472
SPS - Construction	21	10	0	10.8	20	0.0460707	0.1810911	209	0
SPS - Paving	24	10	0	10.8	20	0.0460707	0.1810911	239	0
SPS - Architectural	5	5	0	10.8	20	0.0460707	0.1810911	25	0
RTPS - Construction	458	20	0	10.8	20	0.0460707	0.1810911	9115	0
RTPS - Paving	17	10	0	10.8	20	0.0460707	0.1810911	169	0
RTPS - Architectural Coating	5	5	0	10.8	20	0.0460707	0.1810911	25	0
<b>TOTAL:</b>								<b>29,421</b>	<b>29,887</b>

Operational  
Fuel Use  
(Assume 1  
worker, 260  
work  
days/year)

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**Stanislaus County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	57.00	1000sqft	1.31	57,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	46
<b>Climate Zone</b>	3			<b>Operational Year</b>	2020
<b>Utility Company</b>	Modesto Irrigation District				
<b>CO2 Intensity (lb/MW hr)</b>	833.46	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - From Total Pump Station Area - Request #9

Construction Phase - Based on information in Request #9 and January 2018 feedback from Carollo

Off-road Equipment - Based on Request #9. Off-highway trucks used for trucks for pipe delivery.

Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for pickup trucks.

Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for pickup trucks.

Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for pickup trucks.

Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for pickup trucks.

Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for pickup trucks.

Off-road Equipment - Based on Request #9. Off-highway trucks used for concrete delivery trucks.

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- Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for concrete delivery trucks.
- Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for pickup trucks.
- Off-road Equipment - Based on Request #9 and January communication with Carollo. Off-highway trucks used for pickup trucks.
- Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for pickup trucks.
- Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for concrete trucks and pickup trucks.
- Off-road Equipment - Based on Request #9 and January communication with Carollo. Off-highway trucks used for pickup trucks.
- Off-road Equipment - Based on Request #9 and January feedback from Carollo.
- Off-road Equipment - Based on Request #9 and January communication with Carollo. Off-highway trucks used for pickup trucks.
- Off-road Equipment - Based on Request #9 and January communication with Carollo. Off-highway trucks used for pickup trucks.
- Trips and VMT - Based on Request 9
- Grading - Based on information from Request 9, but divided evenly between available phases. 5 acres / 4 phases
- Vehicle Trips - 1 trip per day
- Vehicle Emission Factors -
- Vehicle Emission Factors -
- Vehicle Emission Factors -
- Energy Use - no natural gas
- Water And Wastewater - no indoor water use at pump station
- Solid Waste - minimal solid waste generation
- Construction Off-road Equipment Mitigation - Added Tier 3 Mitigation
- Operational Off-Road Equipment - remove pump
- Stationary Sources - Emergency Generators and Fire Pumps - Based on PDR 2016
- Architectural Coating - No coating, just fencing.
- Area Coating - No coating, just fencing.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Parking	150.00	0.00
tblArchitecturalCoating	EF_Parking	150.00	0.00

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tblAreaCoating	Area_EF_Parking	150	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	22.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	37.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	NT24NG	3.84	0.00
tblEnergyUse	T24NG	17.11	0.00
tblGrading	AcresOfGrading	25.00	1.25
tblGrading	MaterialExported	0.00	11,500.00
tblGrading	MaterialExported	0.00	11,500.00







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tblOffRoadEquipment	PhaseName	RTPS - Construction
tblOffRoadEquipment	PhaseName	Alignment A
tblOffRoadEquipment	PhaseName	RTPS - Grading
tblOffRoadEquipment	PhaseName	SPS - Grading
tblOffRoadEquipment	PhaseName	Sutter Trunk - Lining
tblOffRoadEquipment	PhaseName	Alignment A
tblOffRoadEquipment	PhaseName	RTPS - Grading
tblOffRoadEquipment	PhaseName	RTPS - Site Prep
tblOffRoadEquipment	PhaseName	SPS - Grading
tblOffRoadEquipment	PhaseName	SPS - Construction
tblOffRoadEquipment	PhaseName	SPS - Paving
tblOffRoadEquipment	PhaseName	RTPS - Construction
tblOffRoadEquipment	PhaseName	RTPS - Paving
tblOffRoadEquipment	PhaseName	Sutter Trunk - Lining
tblOffRoadEquipment	PhaseName	Alignment A
tblOffRoadEquipment	PhaseName	Alignment B
tblOffRoadEquipment	PhaseName	Alignment C
tblOffRoadEquipment	PhaseName	Alignment D
tblOffRoadEquipment	PhaseName	Gravity System
tblOffRoadEquipment	PhaseName	RTPS - Grading
tblOffRoadEquipment	PhaseName	SPS - Site Prep
tblOffRoadEquipment	PhaseName	RTPS - Site Prep
tblOffRoadEquipment	PhaseName	SPS - Grading
tblOffRoadEquipment	PhaseName	SPS - Construction
tblOffRoadEquipment	PhaseName	SPS - Construction
tblOffRoadEquipment	PhaseName	SPS - Paving
tblOffRoadEquipment	PhaseName	SPS - Architectural

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tblOffRoadEquipment	PhaseName	RTPS - Construction
tblOffRoadEquipment	PhaseName	RTPS - Construction
tblOffRoadEquipment	PhaseName	RTPS - Paving
tblOffRoadEquipment	PhaseName	RTPS - Architectural Coating
tblOffRoadEquipment	PhaseName	Sutter Trunk - Lining
tblOffRoadEquipment	PhaseName	Alignment A
tblOffRoadEquipment	PhaseName	Alignment A
tblOffRoadEquipment	PhaseName	Alignment B
tblOffRoadEquipment	PhaseName	Alignment C
tblOffRoadEquipment	PhaseName	Alignment D
tblOffRoadEquipment	PhaseName	Gravity System
tblOffRoadEquipment	PhaseName	RTPS - Grading
tblOffRoadEquipment	PhaseName	RTPS - Grading
tblOffRoadEquipment	PhaseName	SPS - Site Prep
tblOffRoadEquipment	PhaseName	Alignment B
tblOffRoadEquipment	PhaseName	Alignment C
tblOffRoadEquipment	PhaseName	Alignment D
tblOffRoadEquipment	PhaseName	Gravity System
tblOffRoadEquipment	PhaseName	RTPS - Site Prep
tblOffRoadEquipment	PhaseName	SPS - Grading
tblOffRoadEquipment	PhaseName	SPS - Paving
tblOffRoadEquipment	PhaseName	SPS - Architectural
tblOffRoadEquipment	PhaseName	RTPS - Paving
tblOffRoadEquipment	PhaseName	RTPS - Architectural Coating
tblOffRoadEquipment	PhaseName	Sutter Trunk - Lining
tblOffRoadEquipment	PhaseName	Alignment A
tblOffRoadEquipment	PhaseName	SPS - Site Prep

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tblOffRoadEquipment	PhaseName		RTPS - Site Prep
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblSolidWaste	SolidWasteGenerationRate	70.68	1.00
tblTripsAndVMT	HaulingTripNumber	0.00	2,063.00
tblTripsAndVMT	HaulingTripNumber	0.00	2,063.00
tblTripsAndVMT	HaulingTripNumber	0.00	2,063.00
tblTripsAndVMT	VendorTripNumber	9.00	0.00
tblTripsAndVMT	VendorTripNumber	9.00	0.00
tblTripsAndVMT	WorkerTripNumber	24.00	10.00
tblTripsAndVMT	WorkerTripNumber	24.00	20.00
tblTripsAndVMT	WorkerTripNumber	15.00	5.00
tblTripsAndVMT	WorkerTripNumber	13.00	30.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	13.00	20.00
tblTripsAndVMT	WorkerTripNumber	13.00	20.00
tblTripsAndVMT	WorkerTripNumber	13.00	20.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblVehicleTrips	ST_TR	1.32	0.02
tblVehicleTrips	SU_TR	0.68	0.02
tblVehicleTrips	WD_TR	6.97	0.02
tblWater	IndoorWaterUseRate	13,181,250.00	0.00

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**2.0 Emissions Summary**

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	1.0969	8.2437	4.9450	0.0143	0.1321	0.2930	0.4251	0.0348	0.2699	0.3047	0.0000	1,317.2404	1,317.2404	0.3185	0.0000	1,325.2030
2019	0.5123	5.2902	3.4904	9.3700e-003	0.0593	0.2038	0.2631	0.0154	0.1875	0.2029	0.0000	841.6250	841.6250	0.2508	0.0000	847.8941
2020	0.2359	2.3164	1.6142	4.4500e-003	0.0175	0.0893	0.1068	4.6500e-003	0.0821	0.0868	0.0000	391.4718	391.4718	0.1219	0.0000	394.5195
2021	0.4078	0.1122	0.1088	2.3000e-004	7.8000e-004	4.6700e-003	5.4500e-003	2.1000e-004	4.2900e-003	4.5000e-003	0.0000	20.5133	20.5133	6.4300e-003	0.0000	20.6740
<b>Maximum</b>	<b>1.0969</b>	<b>8.2437</b>	<b>4.9450</b>	<b>0.0143</b>	<b>0.1321</b>	<b>0.2930</b>	<b>0.4251</b>	<b>0.0348</b>	<b>0.2699</b>	<b>0.3047</b>	<b>0.0000</b>	<b>1,317.2404</b>	<b>1,317.2404</b>	<b>0.3185</b>	<b>0.0000</b>	<b>1,325.2030</b>

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**2.1 Overall Construction**

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.6400	5.8504	7.3323	0.0143	0.1321	0.2032	0.3353	0.0348	0.2076	0.2424	0.0000	1,317.2393	1,317.2393	0.3185	0.0000	1,325.2018
2019	0.1596	4.0434	5.9141	9.3700e-003	0.0593	0.1661	0.2254	0.0154	0.1705	0.1859	0.0000	841.6241	841.6241	0.2508	0.0000	847.8931
2020	0.0700	2.0386	2.9293	4.4500e-003	0.0175	0.0846	0.1021	4.6500e-003	0.0870	0.0916	0.0000	391.4713	391.4713	0.1219	0.0000	394.5190
2021	0.4018	0.1092	0.1571	2.3000e-004	7.8000e-004	4.7700e-003	5.5500e-003	2.1000e-004	4.8000e-003	5.0000e-003	0.0000	20.5132	20.5132	6.4300e-003	0.0000	20.6740
<b>Maximum</b>	<b>0.6400</b>	<b>5.8504</b>	<b>7.3323</b>	<b>0.0143</b>	<b>0.1321</b>	<b>0.2032</b>	<b>0.3353</b>	<b>0.0348</b>	<b>0.2076</b>	<b>0.2424</b>	<b>0.0000</b>	<b>1,317.2393</b>	<b>1,317.2393</b>	<b>0.3185</b>	<b>0.0000</b>	<b>1,325.2018</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>43.57</b>	<b>24.56</b>	<b>-60.78</b>	<b>0.00</b>	<b>0.00</b>	<b>22.37</b>	<b>16.51</b>	<b>0.00</b>	<b>13.59</b>	<b>12.34</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2018	9-30-2018	1.0111	0.7253
2	10-1-2018	12-31-2018	1.7572	1.2485
3	1-1-2019	3-31-2019	0.3815	0.3017
		<b>Highest</b>	1.7572	1.2485

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**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2623	0.0000	5.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0200e-003	1.0200e-003	0.0000	0.0000	1.0900e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	193.7247	193.7247	6.7400e-003	1.3900e-003	194.3088
Mobile	4.9000e-004	4.3700e-003	5.3200e-003	2.0000e-005	1.2700e-003	2.0000e-005	1.2900e-003	3.4000e-004	2.0000e-005	3.6000e-004	0.0000	1.8901	1.8901	1.2000e-004	0.0000	1.8931
Stationary	0.1490	0.4467	0.3983	7.2000e-004		0.0256	0.0256		0.0256	0.0256	0.0000	69.1528	69.1528	9.7000e-003	0.0000	69.3952
Waste						0.0000	0.0000		0.0000	0.0000	0.2030	0.0000	0.2030	0.0120	0.0000	0.5029
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.4118</b>	<b>0.4510</b>	<b>0.4042</b>	<b>7.4000e-004</b>	<b>1.2700e-003</b>	<b>0.0256</b>	<b>0.0269</b>	<b>3.4000e-004</b>	<b>0.0256</b>	<b>0.0259</b>	<b>0.2030</b>	<b>264.7686</b>	<b>264.9716</b>	<b>0.0286</b>	<b>1.3900e-003</b>	<b>266.1011</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2623	0.0000	5.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0200e-003	1.0200e-003	0.0000	0.0000	1.0900e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	193.7247	193.7247	6.7400e-003	1.3900e-003	194.3088
Mobile	4.9000e-004	4.3700e-003	5.3200e-003	2.0000e-005	1.2700e-003	2.0000e-005	1.2900e-003	3.4000e-004	2.0000e-005	3.6000e-004	0.0000	1.8901	1.8901	1.2000e-004	0.0000	1.8931
Stationary	0.1490	0.4467	0.3983	7.2000e-004		0.0256	0.0256		0.0256	0.0256	0.0000	69.1528	69.1528	9.7000e-003	0.0000	69.3952
Waste						0.0000	0.0000		0.0000	0.0000	0.2030	0.0000	0.2030	0.0120	0.0000	0.5029
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.4118</b>	<b>0.4510</b>	<b>0.4042</b>	<b>7.4000e-004</b>	<b>1.2700e-003</b>	<b>0.0256</b>	<b>0.0269</b>	<b>3.4000e-004</b>	<b>0.0256</b>	<b>0.0259</b>	<b>0.2030</b>	<b>264.7686</b>	<b>264.9716</b>	<b>0.0286</b>	<b>1.3900e-003</b>	<b>266.1011</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**



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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	RTPS - Site Prep	Site Preparation	7/1/2018	8/3/2018	5	25	
2	Sutter Trunk - Lining	Trenching	7/1/2018	7/16/2018	5	11	
3	Alignment A	Trenching	7/1/2018	7/2/2019	5	262	
4	Alignment B	Trenching	7/1/2018	8/2/2018	5	24	
5	Alignment C	Trenching	7/1/2018	11/1/2018	5	89	
6	Alignment D	Trenching	7/1/2018	11/30/2018	5	110	
7	Gravity System	Trenching	7/1/2018	5/3/2019	5	220	
8	RTPS - Grading	Grading	8/3/2018	1/31/2019	5	130	
9	SPS - Site Prep	Site Preparation	9/1/2018	9/17/2018	5	11	
10	SPS - Grading	Grading	9/18/2018	10/19/2018	5	24	
11	SPS - Construction	Building Construction	10/20/2018	11/19/2018	5	21	
12	SPS - Paving	Paving	11/20/2018	12/21/2018	5	24	
13	SPS - Architectural	Architectural Coating	12/22/2018	12/28/2018	5	5	
14	RTPS - Construction	Building Construction	1/31/2019	11/2/2020	5	458	
15	RTPS - Paving	Paving	11/3/2021	11/25/2021	5	17	
16	RTPS - Architectural Coating	Architectural Coating	11/26/2021	12/2/2021	5	5	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 85,500; Non-Residential Outdoor: 28,500; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
RTPS - Site Prep	Excavators	1	8.00	158	0.38
RTPS - Site Prep	Off-Highway Trucks	0	8.00	402	0.38
RTPS - Site Prep	Rubber Tired Loaders	1	8.00	203	0.36
RTPS - Site Prep	Scrapers	1	8.00	367	0.48
Sutter Trunk - Lining	Cranes	1	6.00	231	0.29
Sutter Trunk - Lining	Excavators	2	8.00	158	0.38
Sutter Trunk - Lining	Off-Highway Trucks	2	4.00	402	0.38
Sutter Trunk - Lining	Rubber Tired Loaders	1	8.00	203	0.36
Alignment A	Bore/Drill Rigs	1	8.00	221	0.50
Alignment A	Cranes	1	6.00	231	0.29
Alignment A	Excavators	1	8.00	158	0.38
Alignment A	Off-Highway Trucks	1	8.00	402	0.38
Alignment A	Off-Highway Trucks	0	8.00	402	0.38
Alignment A	Rubber Tired Loaders	1	8.00	203	0.36
Alignment B	Excavators	2	8.00	158	0.38
Alignment B	Off-Highway Trucks	2	4.00	402	0.38
Alignment B	Plate Compactors	1	8.00	8	0.43
Alignment C	Excavators	2	8.00	158	0.38
Alignment C	Off-Highway Trucks	2	4.00	402	0.38
Alignment C	Plate Compactors	1	8.00	8	0.43
Alignment D	Excavators	2	8.00	158	0.38
Alignment D	Off-Highway Trucks	2	4.00	402	0.38
Alignment D	Plate Compactors	1	8.00	8	0.43
Gravity System	Excavators	2	8.00	158	0.38
Gravity System	Off-Highway Trucks	2	4.00	402	0.38
Gravity System	Plate Compactors	1	8.00	8	0.43

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RTPS - Grading	Bore/Drill Rigs	1	8.00	221	0.50
RTPS - Grading	Cranes	1	8.00	231	0.29
RTPS - Grading	Excavators	2	8.00	158	0.38
RTPS - Grading	Off-Highway Trucks	1	8.00	402	0.38
RTPS - Grading	Off-Highway Trucks	0	8.00	402	0.38
RTPS - Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
SPS - Site Prep	Excavators	1	8.00	158	0.38
SPS - Site Prep	Off-Highway Trucks	0	8.00	402	0.38
SPS - Site Prep	Rubber Tired Loaders	1	8.00	203	0.36
SPS - Grading	Cranes	1	6.00	231	0.29
SPS - Grading	Excavators	1	8.00	158	0.38
SPS - Grading	Off-Highway Trucks	0	8.00	402	0.38
SPS - Grading	Rubber Tired Loaders	1	8.00	203	0.36
SPS - Construction	Excavators	1	8.00	158	0.38
SPS - Construction	Off-Highway Trucks	1	8.00	402	0.38
SPS - Construction	Off-Highway Trucks	1	4.00	402	0.38
SPS - Paving	Excavators	2	8.00	158	0.38
SPS - Paving	Off-Highway Trucks	0	8.00	402	0.38
SPS - Paving	Pavers	1	8.00	130	0.42
SPS - Paving	Rubber Tired Loaders	1	8.00	203	0.36
SPS - Architectural	Off-Highway Trucks	2	4.00	402	0.38
SPS - Architectural	Rubber Tired Loaders	1	8.00	203	0.36
RTPS - Construction	Aerial Lifts	1	8.00	63	0.31
RTPS - Construction	Cranes	1	8.00	231	0.29
RTPS - Construction	Excavators	1	8.00	158	0.38
RTPS - Construction	Off-Highway Trucks	0	8.00	402	0.38
RTPS - Construction	Off-Highway Trucks	2	8.00	402	0.38

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RTPS - Paving	Excavators	2	8.00	158	0.38
RTPS - Paving	Off-Highway Trucks	0	8.00	402	0.38
RTPS - Paving	Pavers	1	8.00	130	0.42
RTPS - Paving	Rubber Tired Loaders	1	8.00	203	0.36
RTPS - Architectural Coating	Off-Highway Trucks	2	4.00	402	0.38
RTPS - Architectural Coating	Rubber Tired Loaders	1	6.00	203	0.36

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
RTPS - Site Prep	4	10.00	0.00	2,063.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Sutter Trunk - Lining	6	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Alignment A	5	30.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Alignment B	5	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Alignment C	5	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Alignment D	5	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Gravity System	5	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
RTPS - Grading	7	20.00	0.00	2,063.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
SPS - Site Prep	3	10.00	0.00	2,063.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
SPS - Grading	4	10.00	0.00	2,063.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
SPS - Construction	3	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
SPS - Paving	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
SPS - Architectural	3	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
RTPS - Construction	5	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
RTPS - Paving	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
RTPS - Architectural Coating	3	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

**3.2 RTPS - Site Prep - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6000e-003	0.0000	1.6000e-003	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0233	0.2827	0.1725	3.3000e-004		0.0111	0.0111		0.0102	0.0102	0.0000	30.3141	30.3141	9.4400e-003	0.0000	30.5500
<b>Total</b>	<b>0.0233</b>	<b>0.2827</b>	<b>0.1725</b>	<b>3.3000e-004</b>	<b>1.6000e-003</b>	<b>0.0111</b>	<b>0.0127</b>	<b>2.1000e-004</b>	<b>0.0102</b>	<b>0.0105</b>	<b>0.0000</b>	<b>30.3141</b>	<b>30.3141</b>	<b>9.4400e-003</b>	<b>0.0000</b>	<b>30.5500</b>

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**3.2 RTPS - Site Prep - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.3000e-003	0.3243	0.0444	8.4000e-004	0.0176	1.3200e-003	0.0189	4.8300e-003	1.2700e-003	6.1000e-003	0.0000	79.9973	79.9973	5.1700e-003	0.0000	80.1264
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	4.9000e-004	5.1000e-003	1.0000e-005	1.0000e-003	1.0000e-005	1.0100e-003	2.7000e-004	1.0000e-005	2.7000e-004	0.0000	0.9761	0.9761	4.0000e-005	0.0000	0.9770
<b>Total</b>	<b>9.9800e-003</b>	<b>0.3248</b>	<b>0.0495</b>	<b>8.5000e-004</b>	<b>0.0186</b>	<b>1.3300e-003</b>	<b>0.0199</b>	<b>5.1000e-003</b>	<b>1.2800e-003</b>	<b>6.3700e-003</b>	<b>0.0000</b>	<b>80.9734</b>	<b>80.9734</b>	<b>5.2100e-003</b>	<b>0.0000</b>	<b>81.1034</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6000e-003	0.0000	1.6000e-003	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.1800e-003	0.1582	0.1918	3.3000e-004		6.3200e-003	6.3200e-003		6.3200e-003	6.3200e-003	0.0000	30.3141	30.3141	9.4400e-003	0.0000	30.5500
<b>Total</b>	<b>8.1800e-003</b>	<b>0.1582</b>	<b>0.1918</b>	<b>3.3000e-004</b>	<b>1.6000e-003</b>	<b>6.3200e-003</b>	<b>7.9200e-003</b>	<b>2.1000e-004</b>	<b>6.3200e-003</b>	<b>6.5300e-003</b>	<b>0.0000</b>	<b>30.3141</b>	<b>30.3141</b>	<b>9.4400e-003</b>	<b>0.0000</b>	<b>30.5500</b>

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**3.2 RTPS - Site Prep - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.3000e-003	0.3243	0.0444	8.4000e-004	0.0176	1.3200e-003	0.0189	4.8300e-003	1.2700e-003	6.1000e-003	0.0000	79.9973	79.9973	5.1700e-003	0.0000	80.1264
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	4.9000e-004	5.1000e-003	1.0000e-005	1.0000e-003	1.0000e-005	1.0100e-003	2.7000e-004	1.0000e-005	2.7000e-004	0.0000	0.9761	0.9761	4.0000e-005	0.0000	0.9770
<b>Total</b>	<b>9.9800e-003</b>	<b>0.3248</b>	<b>0.0495</b>	<b>8.5000e-004</b>	<b>0.0186</b>	<b>1.3300e-003</b>	<b>0.0199</b>	<b>5.1000e-003</b>	<b>1.2800e-003</b>	<b>6.3700e-003</b>	<b>0.0000</b>	<b>80.9734</b>	<b>80.9734</b>	<b>5.2100e-003</b>	<b>0.0000</b>	<b>81.1034</b>

**3.3 Sutter Trunk - Lining - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0122	0.1373	0.0791	1.9000e-004		5.5300e-003	5.5300e-003		5.0900e-003	5.0900e-003	0.0000	17.1295	17.1295	5.3300e-003	0.0000	17.2628
<b>Total</b>	<b>0.0122</b>	<b>0.1373</b>	<b>0.0791</b>	<b>1.9000e-004</b>		<b>5.5300e-003</b>	<b>5.5300e-003</b>		<b>5.0900e-003</b>	<b>5.0900e-003</b>	<b>0.0000</b>	<b>17.1295</b>	<b>17.1295</b>	<b>5.3300e-003</b>	<b>0.0000</b>	<b>17.2628</b>

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**3.3 Sutter Trunk - Lining - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.1000e-004	1.1200e-003	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2147	0.2147	1.0000e-005	0.0000	0.2149
<b>Total</b>	<b>1.5000e-004</b>	<b>1.1000e-004</b>	<b>1.1200e-003</b>	<b>0.0000</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>2.2000e-004</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.2147</b>	<b>0.2147</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.2149</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.1300e-003	0.0823	0.1220	1.9000e-004		3.4400e-003	3.4400e-003		3.5200e-003	3.5200e-003	0.0000	17.1295	17.1295	5.3300e-003	0.0000	17.2628
<b>Total</b>	<b>3.1300e-003</b>	<b>0.0823</b>	<b>0.1220</b>	<b>1.9000e-004</b>		<b>3.4400e-003</b>	<b>3.4400e-003</b>		<b>3.5200e-003</b>	<b>3.5200e-003</b>	<b>0.0000</b>	<b>17.1295</b>	<b>17.1295</b>	<b>5.3300e-003</b>	<b>0.0000</b>	<b>17.2628</b>



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**3.3 Sutter Trunk - Lining - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.1000e-004	1.1200e-003	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2147	0.2147	1.0000e-005	0.0000	0.2149
<b>Total</b>	<b>1.5000e-004</b>	<b>1.1000e-004</b>	<b>1.1200e-003</b>	<b>0.0000</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>2.2000e-004</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.2147</b>	<b>0.2147</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.2149</b>

**3.4 Alignment A - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1455	1.7068	0.8643	2.5100e-003		0.0638	0.0638		0.0587	0.0587	0.0000	229.2367	229.2367	0.0714	0.0000	231.0208
<b>Total</b>	<b>0.1455</b>	<b>1.7068</b>	<b>0.8643</b>	<b>2.5100e-003</b>		<b>0.0638</b>	<b>0.0638</b>		<b>0.0587</b>	<b>0.0587</b>	<b>0.0000</b>	<b>229.2367</b>	<b>229.2367</b>	<b>0.0714</b>	<b>0.0000</b>	<b>231.0208</b>

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**3.4 Alignment A - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0107	7.7500e-003	0.0802	1.7000e-004	0.0157	1.3000e-004	0.0158	4.1700e-003	1.2000e-004	4.2900e-003	0.0000	15.3438	15.3438	5.9000e-004	0.0000	15.3586
<b>Total</b>	<b>0.0107</b>	<b>7.7500e-003</b>	<b>0.0802</b>	<b>1.7000e-004</b>	<b>0.0157</b>	<b>1.3000e-004</b>	<b>0.0158</b>	<b>4.1700e-003</b>	<b>1.2000e-004</b>	<b>4.2900e-003</b>	<b>0.0000</b>	<b>15.3438</b>	<b>15.3438</b>	<b>5.9000e-004</b>	<b>0.0000</b>	<b>15.3586</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0442	1.1155	1.5279	2.5100e-003		0.0444	0.0444		0.0454	0.0454	0.0000	229.2364	229.2364	0.0714	0.0000	231.0205
<b>Total</b>	<b>0.0442</b>	<b>1.1155</b>	<b>1.5279</b>	<b>2.5100e-003</b>		<b>0.0444</b>	<b>0.0444</b>		<b>0.0454</b>	<b>0.0454</b>	<b>0.0000</b>	<b>229.2364</b>	<b>229.2364</b>	<b>0.0714</b>	<b>0.0000</b>	<b>231.0205</b>

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**3.4 Alignment A - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0107	7.7500e-003	0.0802	1.7000e-004	0.0157	1.3000e-004	0.0158	4.1700e-003	1.2000e-004	4.2900e-003	0.0000	15.3438	15.3438	5.9000e-004	0.0000	15.3586
<b>Total</b>	<b>0.0107</b>	<b>7.7500e-003</b>	<b>0.0802</b>	<b>1.7000e-004</b>	<b>0.0157</b>	<b>1.3000e-004</b>	<b>0.0158</b>	<b>4.1700e-003</b>	<b>1.2000e-004</b>	<b>4.2900e-003</b>	<b>0.0000</b>	<b>15.3438</b>	<b>15.3438</b>	<b>5.9000e-004</b>	<b>0.0000</b>	<b>15.3586</b>

**3.4 Alignment A - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1328	1.4996	0.8335	2.5100e-003		0.0556	0.0556		0.0511	0.0511	0.0000	225.4020	225.4020	0.0713	0.0000	227.1849
<b>Total</b>	<b>0.1328</b>	<b>1.4996</b>	<b>0.8335</b>	<b>2.5100e-003</b>		<b>0.0556</b>	<b>0.0556</b>		<b>0.0511</b>	<b>0.0511</b>	<b>0.0000</b>	<b>225.4020</b>	<b>225.4020</b>	<b>0.0713</b>	<b>0.0000</b>	<b>227.1849</b>

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**3.4 Alignment A - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.6800e-003	6.7900e-003	0.0710	1.7000e-004	0.0157	1.2000e-004	0.0158	4.1700e-003	1.1000e-004	4.2900e-003	0.0000	14.9023	14.9023	5.2000e-004	0.0000	14.9153
<b>Total</b>	<b>9.6800e-003</b>	<b>6.7900e-003</b>	<b>0.0710</b>	<b>1.7000e-004</b>	<b>0.0157</b>	<b>1.2000e-004</b>	<b>0.0158</b>	<b>4.1700e-003</b>	<b>1.1000e-004</b>	<b>4.2900e-003</b>	<b>0.0000</b>	<b>14.9023</b>	<b>14.9023</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>14.9153</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0467	1.1601	1.5360	2.5100e-003		0.0461	0.0461		0.0469	0.0469	0.0000	225.4017	225.4017	0.0713	0.0000	227.1846
<b>Total</b>	<b>0.0467</b>	<b>1.1601</b>	<b>1.5360</b>	<b>2.5100e-003</b>		<b>0.0461</b>	<b>0.0461</b>		<b>0.0469</b>	<b>0.0469</b>	<b>0.0000</b>	<b>225.4017</b>	<b>225.4017</b>	<b>0.0713</b>	<b>0.0000</b>	<b>227.1846</b>

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**3.4 Alignment A - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.6800e-003	6.7900e-003	0.0710	1.7000e-004	0.0157	1.2000e-004	0.0158	4.1700e-003	1.1000e-004	4.2900e-003	0.0000	14.9023	14.9023	5.2000e-004	0.0000	14.9153
<b>Total</b>	<b>9.6800e-003</b>	<b>6.7900e-003</b>	<b>0.0710</b>	<b>1.7000e-004</b>	<b>0.0157</b>	<b>1.2000e-004</b>	<b>0.0158</b>	<b>4.1700e-003</b>	<b>1.1000e-004</b>	<b>4.2900e-003</b>	<b>0.0000</b>	<b>14.9023</b>	<b>14.9023</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>14.9153</b>

**3.5 Alignment B - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0167	0.1772	0.1316	2.9000e-004		7.3700e-003	7.3700e-003		6.7900e-003	6.7900e-003	0.0000	26.1625	26.1625	8.0700e-003	0.0000	26.3641
<b>Total</b>	<b>0.0167</b>	<b>0.1772</b>	<b>0.1316</b>	<b>2.9000e-004</b>		<b>7.3700e-003</b>	<b>7.3700e-003</b>		<b>6.7900e-003</b>	<b>6.7900e-003</b>	<b>0.0000</b>	<b>26.1625</b>	<b>26.1625</b>	<b>8.0700e-003</b>	<b>0.0000</b>	<b>26.3641</b>

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**3.5 Alignment B - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	4.7000e-004	4.9000e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.9370	0.9370	4.0000e-005	0.0000	0.9379
<b>Total</b>	<b>6.6000e-004</b>	<b>4.7000e-004</b>	<b>4.9000e-003</b>	<b>1.0000e-005</b>	<b>9.6000e-004</b>	<b>1.0000e-005</b>	<b>9.7000e-004</b>	<b>2.5000e-004</b>	<b>1.0000e-005</b>	<b>2.6000e-004</b>	<b>0.0000</b>	<b>0.9370</b>	<b>0.9370</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.9379</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.6900e-003	0.1190	0.1983	2.9000e-004		5.2100e-003	5.2100e-003		5.3900e-003	5.3900e-003	0.0000	26.1624	26.1624	8.0700e-003	0.0000	26.3641
<b>Total</b>	<b>3.6900e-003</b>	<b>0.1190</b>	<b>0.1983</b>	<b>2.9000e-004</b>		<b>5.2100e-003</b>	<b>5.2100e-003</b>		<b>5.3900e-003</b>	<b>5.3900e-003</b>	<b>0.0000</b>	<b>26.1624</b>	<b>26.1624</b>	<b>8.0700e-003</b>	<b>0.0000</b>	<b>26.3641</b>

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**3.5 Alignment B - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	4.7000e-004	4.9000e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.9370	0.9370	4.0000e-005	0.0000	0.9379
<b>Total</b>	<b>6.6000e-004</b>	<b>4.7000e-004</b>	<b>4.9000e-003</b>	<b>1.0000e-005</b>	<b>9.6000e-004</b>	<b>1.0000e-005</b>	<b>9.7000e-004</b>	<b>2.5000e-004</b>	<b>1.0000e-005</b>	<b>2.6000e-004</b>	<b>0.0000</b>	<b>0.9370</b>	<b>0.9370</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.9379</b>

**3.6 Alignment C - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0619	0.6572	0.4879	1.0700e-003		0.0273	0.0273		0.0252	0.0252	0.0000	97.0192	97.0192	0.0299	0.0000	97.7670
<b>Total</b>	<b>0.0619</b>	<b>0.6572</b>	<b>0.4879</b>	<b>1.0700e-003</b>		<b>0.0273</b>	<b>0.0273</b>		<b>0.0252</b>	<b>0.0252</b>	<b>0.0000</b>	<b>97.0192</b>	<b>97.0192</b>	<b>0.0299</b>	<b>0.0000</b>	<b>97.7670</b>

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**3.6 Alignment C - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8600e-003	3.5100e-003	0.0363	8.0000e-005	7.1100e-003	6.0000e-005	7.1700e-003	1.8900e-003	5.0000e-005	1.9400e-003	0.0000	6.9496	6.9496	2.7000e-004	0.0000	6.9563
<b>Total</b>	<b>4.8600e-003</b>	<b>3.5100e-003</b>	<b>0.0363</b>	<b>8.0000e-005</b>	<b>7.1100e-003</b>	<b>6.0000e-005</b>	<b>7.1700e-003</b>	<b>1.8900e-003</b>	<b>5.0000e-005</b>	<b>1.9400e-003</b>	<b>0.0000</b>	<b>6.9496</b>	<b>6.9496</b>	<b>2.7000e-004</b>	<b>0.0000</b>	<b>6.9563</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0137	0.4414	0.7353	1.0700e-003		0.0193	0.0193		0.0200	0.0200	0.0000	97.0191	97.0191	0.0299	0.0000	97.7669
<b>Total</b>	<b>0.0137</b>	<b>0.4414</b>	<b>0.7353</b>	<b>1.0700e-003</b>		<b>0.0193</b>	<b>0.0193</b>		<b>0.0200</b>	<b>0.0200</b>	<b>0.0000</b>	<b>97.0191</b>	<b>97.0191</b>	<b>0.0299</b>	<b>0.0000</b>	<b>97.7669</b>



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**3.6 Alignment C - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8600e-003	3.5100e-003	0.0363	8.0000e-005	7.1100e-003	6.0000e-005	7.1700e-003	1.8900e-003	5.0000e-005	1.9400e-003	0.0000	6.9496	6.9496	2.7000e-004	0.0000	6.9563
<b>Total</b>	<b>4.8600e-003</b>	<b>3.5100e-003</b>	<b>0.0363</b>	<b>8.0000e-005</b>	<b>7.1100e-003</b>	<b>6.0000e-005</b>	<b>7.1700e-003</b>	<b>1.8900e-003</b>	<b>5.0000e-005</b>	<b>1.9400e-003</b>	<b>0.0000</b>	<b>6.9496</b>	<b>6.9496</b>	<b>2.7000e-004</b>	<b>0.0000</b>	<b>6.9563</b>

**3.7 Alignment D - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0765	0.8122	0.6030	1.3200e-003		0.0338	0.0338		0.0311	0.0311	0.0000	119.9113	119.9113	0.0370	0.0000	120.8357
<b>Total</b>	<b>0.0765</b>	<b>0.8122</b>	<b>0.6030</b>	<b>1.3200e-003</b>		<b>0.0338</b>	<b>0.0338</b>		<b>0.0311</b>	<b>0.0311</b>	<b>0.0000</b>	<b>119.9113</b>	<b>119.9113</b>	<b>0.0370</b>	<b>0.0000</b>	<b>120.8357</b>

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**3.7 Alignment D - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0100e-003	4.3400e-003	0.0449	1.0000e-004	8.7900e-003	7.0000e-005	8.8600e-003	2.3400e-003	7.0000e-005	2.4000e-003	0.0000	8.5894	8.5894	3.3000e-004	0.0000	8.5977
<b>Total</b>	<b>6.0100e-003</b>	<b>4.3400e-003</b>	<b>0.0449</b>	<b>1.0000e-004</b>	<b>8.7900e-003</b>	<b>7.0000e-005</b>	<b>8.8600e-003</b>	<b>2.3400e-003</b>	<b>7.0000e-005</b>	<b>2.4000e-003</b>	<b>0.0000</b>	<b>8.5894</b>	<b>8.5894</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>8.5977</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0169	0.5456	0.9088	1.3200e-003		0.0239	0.0239		0.0247	0.0247	0.0000	119.9112	119.9112	0.0370	0.0000	120.8355
<b>Total</b>	<b>0.0169</b>	<b>0.5456</b>	<b>0.9088</b>	<b>1.3200e-003</b>		<b>0.0239</b>	<b>0.0239</b>		<b>0.0247</b>	<b>0.0247</b>	<b>0.0000</b>	<b>119.9112</b>	<b>119.9112</b>	<b>0.0370</b>	<b>0.0000</b>	<b>120.8355</b>

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**3.7 Alignment D - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0100e-003	4.3400e-003	0.0449	1.0000e-004	8.7900e-003	7.0000e-005	8.8600e-003	2.3400e-003	7.0000e-005	2.4000e-003	0.0000	8.5894	8.5894	3.3000e-004	0.0000	8.5977
<b>Total</b>	<b>6.0100e-003</b>	<b>4.3400e-003</b>	<b>0.0449</b>	<b>1.0000e-004</b>	<b>8.7900e-003</b>	<b>7.0000e-005</b>	<b>8.8600e-003</b>	<b>2.3400e-003</b>	<b>7.0000e-005</b>	<b>2.4000e-003</b>	<b>0.0000</b>	<b>8.5894</b>	<b>8.5894</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>8.5977</b>

**3.8 Gravity System - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0912	0.9673	0.7181	1.5700e-003		0.0402	0.0402		0.0371	0.0371	0.0000	142.8035	142.8035	0.0440	0.0000	143.9043
<b>Total</b>	<b>0.0912</b>	<b>0.9673</b>	<b>0.7181</b>	<b>1.5700e-003</b>		<b>0.0402</b>	<b>0.0402</b>		<b>0.0371</b>	<b>0.0371</b>	<b>0.0000</b>	<b>142.8035</b>	<b>142.8035</b>	<b>0.0440</b>	<b>0.0000</b>	<b>143.9043</b>

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**3.8 Gravity System - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.1500e-003	5.1600e-003	0.0535	1.1000e-004	0.0105	9.0000e-005	0.0106	2.7800e-003	8.0000e-005	2.8600e-003	0.0000	10.2292	10.2292	3.9000e-004	0.0000	10.2391
<b>Total</b>	<b>7.1500e-003</b>	<b>5.1600e-003</b>	<b>0.0535</b>	<b>1.1000e-004</b>	<b>0.0105</b>	<b>9.0000e-005</b>	<b>0.0106</b>	<b>2.7800e-003</b>	<b>8.0000e-005</b>	<b>2.8600e-003</b>	<b>0.0000</b>	<b>10.2292</b>	<b>10.2292</b>	<b>3.9000e-004</b>	<b>0.0000</b>	<b>10.2391</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0201	0.6497	1.0823	1.5700e-003		0.0284	0.0284		0.0294	0.0294	0.0000	142.8033	142.8033	0.0440	0.0000	143.9041
<b>Total</b>	<b>0.0201</b>	<b>0.6497</b>	<b>1.0823</b>	<b>1.5700e-003</b>		<b>0.0284</b>	<b>0.0284</b>		<b>0.0294</b>	<b>0.0294</b>	<b>0.0000</b>	<b>142.8033</b>	<b>142.8033</b>	<b>0.0440</b>	<b>0.0000</b>	<b>143.9041</b>

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**3.8 Gravity System - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.1500e-003	5.1600e-003	0.0535	1.1000e-004	0.0105	9.0000e-005	0.0106	2.7800e-003	8.0000e-005	2.8600e-003	0.0000	10.2292	10.2292	3.9000e-004	0.0000	10.2391
<b>Total</b>	<b>7.1500e-003</b>	<b>5.1600e-003</b>	<b>0.0535</b>	<b>1.1000e-004</b>	<b>0.0105</b>	<b>9.0000e-005</b>	<b>0.0106</b>	<b>2.7800e-003</b>	<b>8.0000e-005</b>	<b>2.8600e-003</b>	<b>0.0000</b>	<b>10.2292</b>	<b>10.2292</b>	<b>3.9000e-004</b>	<b>0.0000</b>	<b>10.2391</b>

**3.8 Gravity System - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0566	0.5698	0.4777	1.0700e-003		0.0236	0.0236		0.0217	0.0217	0.0000	95.4527	95.4527	0.0299	0.0000	96.2003
<b>Total</b>	<b>0.0566</b>	<b>0.5698</b>	<b>0.4777</b>	<b>1.0700e-003</b>		<b>0.0236</b>	<b>0.0236</b>		<b>0.0217</b>	<b>0.0217</b>	<b>0.0000</b>	<b>95.4527</b>	<b>95.4527</b>	<b>0.0299</b>	<b>0.0000</b>	<b>96.2003</b>

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**3.8 Gravity System - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3900e-003	3.0700e-003	0.0321	7.0000e-005	7.1100e-003	6.0000e-005	7.1700e-003	1.8900e-003	5.0000e-005	1.9400e-003	0.0000	6.7497	6.7497	2.4000e-004	0.0000	6.7555
<b>Total</b>	<b>4.3900e-003</b>	<b>3.0700e-003</b>	<b>0.0321</b>	<b>7.0000e-005</b>	<b>7.1100e-003</b>	<b>6.0000e-005</b>	<b>7.1700e-003</b>	<b>1.8900e-003</b>	<b>5.0000e-005</b>	<b>1.9400e-003</b>	<b>0.0000</b>	<b>6.7497</b>	<b>6.7497</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>6.7555</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0154	0.4717	0.7407	1.0700e-003		0.0205	0.0205		0.0210	0.0210	0.0000	95.4526	95.4526	0.0299	0.0000	96.2002
<b>Total</b>	<b>0.0154</b>	<b>0.4717</b>	<b>0.7407</b>	<b>1.0700e-003</b>		<b>0.0205</b>	<b>0.0205</b>		<b>0.0210</b>	<b>0.0210</b>	<b>0.0000</b>	<b>95.4526</b>	<b>95.4526</b>	<b>0.0299</b>	<b>0.0000</b>	<b>96.2002</b>

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**3.8 Gravity System - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3900e-003	3.0700e-003	0.0321	7.0000e-005	7.1100e-003	6.0000e-005	7.1700e-003	1.8900e-003	5.0000e-005	1.9400e-003	0.0000	6.7497	6.7497	2.4000e-004	0.0000	6.7555
<b>Total</b>	<b>4.3900e-003</b>	<b>3.0700e-003</b>	<b>0.0321</b>	<b>7.0000e-005</b>	<b>7.1100e-003</b>	<b>6.0000e-005</b>	<b>7.1700e-003</b>	<b>1.8900e-003</b>	<b>5.0000e-005</b>	<b>1.9400e-003</b>	<b>0.0000</b>	<b>6.7497</b>	<b>6.7497</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>6.7555</b>

**3.9 RTPS - Grading - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6000e-003	0.0000	1.6000e-003	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1474	1.6474	1.0721	2.4000e-003		0.0744	0.0744		0.0684	0.0684	0.0000	219.3409	219.3409	0.0683	0.0000	221.0480
<b>Total</b>	<b>0.1474</b>	<b>1.6474</b>	<b>1.0721</b>	<b>2.4000e-003</b>	<b>1.6000e-003</b>	<b>0.0744</b>	<b>0.0760</b>	<b>2.1000e-004</b>	<b>0.0684</b>	<b>0.0687</b>	<b>0.0000</b>	<b>219.3409</b>	<b>219.3409</b>	<b>0.0683</b>	<b>0.0000</b>	<b>221.0480</b>

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**3.9 RTPS - Grading - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.6500e-003	0.2670	0.0365	6.9000e-004	0.0168	1.0900e-003	0.0179	4.5500e-003	1.0400e-003	5.6000e-003	0.0000	65.8439	65.8439	4.2500e-003	0.0000	65.9502
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8400e-003	4.2200e-003	0.0437	9.0000e-005	8.5500e-003	7.0000e-005	8.6200e-003	2.2700e-003	6.0000e-005	2.3400e-003	0.0000	8.3552	8.3552	3.2000e-004	0.0000	8.3632
<b>Total</b>	<b>0.0135</b>	<b>0.2712</b>	<b>0.0802</b>	<b>7.8000e-004</b>	<b>0.0254</b>	<b>1.1600e-003</b>	<b>0.0265</b>	<b>6.8200e-003</b>	<b>1.1000e-003</b>	<b>7.9400e-003</b>	<b>0.0000</b>	<b>74.1991</b>	<b>74.1991</b>	<b>4.5700e-003</b>	<b>0.0000</b>	<b>74.3134</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6000e-003	0.0000	1.6000e-003	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0447	1.1048	1.5700	2.4000e-003		0.0510	0.0510		0.0518	0.0518	0.0000	219.3407	219.3407	0.0683	0.0000	221.0478
<b>Total</b>	<b>0.0447</b>	<b>1.1048</b>	<b>1.5700</b>	<b>2.4000e-003</b>	<b>1.6000e-003</b>	<b>0.0510</b>	<b>0.0526</b>	<b>2.1000e-004</b>	<b>0.0518</b>	<b>0.0520</b>	<b>0.0000</b>	<b>219.3407</b>	<b>219.3407</b>	<b>0.0683</b>	<b>0.0000</b>	<b>221.0478</b>



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**3.9 RTPS - Grading - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.6500e-003	0.2670	0.0365	6.9000e-004	0.0168	1.0900e-003	0.0179	4.5500e-003	1.0400e-003	5.6000e-003	0.0000	65.8439	65.8439	4.2500e-003	0.0000	65.9502
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8400e-003	4.2200e-003	0.0437	9.0000e-005	8.5500e-003	7.0000e-005	8.6200e-003	2.2700e-003	6.0000e-005	2.3400e-003	0.0000	8.3552	8.3552	3.2000e-004	0.0000	8.3632
<b>Total</b>	<b>0.0135</b>	<b>0.2712</b>	<b>0.0802</b>	<b>7.8000e-004</b>	<b>0.0254</b>	<b>1.1600e-003</b>	<b>0.0265</b>	<b>6.8200e-003</b>	<b>1.1000e-003</b>	<b>7.9400e-003</b>	<b>0.0000</b>	<b>74.1991</b>	<b>74.1991</b>	<b>4.5700e-003</b>	<b>0.0000</b>	<b>74.3134</b>

**3.9 RTPS - Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6000e-003	0.0000	1.6000e-003	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0285	0.3097	0.2241	5.2000e-004		0.0137	0.0137		0.0126	0.0126	0.0000	46.3578	46.3578	0.0147	0.0000	46.7244
<b>Total</b>	<b>0.0285</b>	<b>0.3097</b>	<b>0.2241</b>	<b>5.2000e-004</b>	<b>1.6000e-003</b>	<b>0.0137</b>	<b>0.0153</b>	<b>2.1000e-004</b>	<b>0.0126</b>	<b>0.0128</b>	<b>0.0000</b>	<b>46.3578</b>	<b>46.3578</b>	<b>0.0147</b>	<b>0.0000</b>	<b>46.7244</b>

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**3.9 RTPS - Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5700e-003	0.0542	7.6000e-003	1.5000e-004	0.0140	2.1000e-004	0.0142	3.5200e-003	2.0000e-004	3.7300e-003	0.0000	13.9965	13.9965	9.0000e-004	0.0000	14.0189
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1300e-003	7.9000e-004	8.3100e-003	2.0000e-005	1.8400e-003	1.0000e-005	1.8500e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.7443	1.7443	6.0000e-005	0.0000	1.7458
<b>Total</b>	<b>2.7000e-003</b>	<b>0.0550</b>	<b>0.0159</b>	<b>1.7000e-004</b>	<b>0.0158</b>	<b>2.2000e-004</b>	<b>0.0161</b>	<b>4.0100e-003</b>	<b>2.1000e-004</b>	<b>4.2300e-003</b>	<b>0.0000</b>	<b>15.7408</b>	<b>15.7408</b>	<b>9.6000e-004</b>	<b>0.0000</b>	<b>15.7647</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6000e-003	0.0000	1.6000e-003	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0100	0.2453	0.3389	5.2000e-004		0.0113	0.0113		0.0114	0.0114	0.0000	46.3577	46.3577	0.0147	0.0000	46.7244
<b>Total</b>	<b>0.0100</b>	<b>0.2453</b>	<b>0.3389</b>	<b>5.2000e-004</b>	<b>1.6000e-003</b>	<b>0.0113</b>	<b>0.0129</b>	<b>2.1000e-004</b>	<b>0.0114</b>	<b>0.0116</b>	<b>0.0000</b>	<b>46.3577</b>	<b>46.3577</b>	<b>0.0147</b>	<b>0.0000</b>	<b>46.7244</b>

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**3.9 RTPS - Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5700e-003	0.0542	7.6000e-003	1.5000e-004	0.0140	2.1000e-004	0.0142	3.5200e-003	2.0000e-004	3.7300e-003	0.0000	13.9965	13.9965	9.0000e-004	0.0000	14.0189
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1300e-003	7.9000e-004	8.3100e-003	2.0000e-005	1.8400e-003	1.0000e-005	1.8500e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.7443	1.7443	6.0000e-005	0.0000	1.7458
<b>Total</b>	<b>2.7000e-003</b>	<b>0.0550</b>	<b>0.0159</b>	<b>1.7000e-004</b>	<b>0.0158</b>	<b>2.2000e-004</b>	<b>0.0161</b>	<b>4.0100e-003</b>	<b>2.1000e-004</b>	<b>4.2300e-003</b>	<b>0.0000</b>	<b>15.7408</b>	<b>15.7408</b>	<b>9.6000e-004</b>	<b>0.0000</b>	<b>15.7647</b>

**3.10 SPS - Site Prep - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6000e-003	0.0000	1.6000e-003	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9500e-003	0.0463	0.0276	6.0000e-005		1.8200e-003	1.8200e-003		1.6700e-003	1.6700e-003	0.0000	5.7302	5.7302	1.7800e-003	0.0000	5.7748
<b>Total</b>	<b>3.9500e-003</b>	<b>0.0463</b>	<b>0.0276</b>	<b>6.0000e-005</b>	<b>1.6000e-003</b>	<b>1.8200e-003</b>	<b>3.4200e-003</b>	<b>2.1000e-004</b>	<b>1.6700e-003</b>	<b>1.8800e-003</b>	<b>0.0000</b>	<b>5.7302</b>	<b>5.7302</b>	<b>1.7800e-003</b>	<b>0.0000</b>	<b>5.7748</b>

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**3.10 SPS - Site Prep - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.3000e-003	0.3243	0.0444	8.4000e-004	0.0176	1.3200e-003	0.0189	4.8300e-003	1.2700e-003	6.1000e-003	0.0000	79.9973	79.9973	5.1700e-003	0.0000	80.1264
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.2000e-004	2.2400e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4295	0.4295	2.0000e-005	0.0000	0.4299
<b>Total</b>	<b>9.6000e-003</b>	<b>0.3246</b>	<b>0.0466</b>	<b>8.4000e-004</b>	<b>0.0180</b>	<b>1.3200e-003</b>	<b>0.0194</b>	<b>4.9500e-003</b>	<b>1.2700e-003</b>	<b>6.2200e-003</b>	<b>0.0000</b>	<b>80.4268</b>	<b>80.4268</b>	<b>5.1900e-003</b>	<b>0.0000</b>	<b>80.5563</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6000e-003	0.0000	1.6000e-003	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5500e-003	0.0300	0.0400	6.0000e-005		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	5.7302	5.7302	1.7800e-003	0.0000	5.7748
<b>Total</b>	<b>1.5500e-003</b>	<b>0.0300</b>	<b>0.0400</b>	<b>6.0000e-005</b>	<b>1.6000e-003</b>	<b>1.2800e-003</b>	<b>2.8800e-003</b>	<b>2.1000e-004</b>	<b>1.2800e-003</b>	<b>1.4900e-003</b>	<b>0.0000</b>	<b>5.7302</b>	<b>5.7302</b>	<b>1.7800e-003</b>	<b>0.0000</b>	<b>5.7748</b>

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**3.10 SPS - Site Prep - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.3000e-003	0.3243	0.0444	8.4000e-004	0.0176	1.3200e-003	0.0189	4.8300e-003	1.2700e-003	6.1000e-003	0.0000	79.9973	79.9973	5.1700e-003	0.0000	80.1264
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.2000e-004	2.2400e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4295	0.4295	2.0000e-005	0.0000	0.4299
<b>Total</b>	<b>9.6000e-003</b>	<b>0.3246</b>	<b>0.0466</b>	<b>8.4000e-004</b>	<b>0.0180</b>	<b>1.3200e-003</b>	<b>0.0194</b>	<b>4.9500e-003</b>	<b>1.2700e-003</b>	<b>6.2200e-003</b>	<b>0.0000</b>	<b>80.4268</b>	<b>80.4268</b>	<b>5.1900e-003</b>	<b>0.0000</b>	<b>80.5563</b>

**3.11 SPS - Grading - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6000e-003	0.0000	1.6000e-003	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0138	0.1624	0.0828	1.9000e-004		6.6300e-003	6.6300e-003		6.1000e-003	6.1000e-003	0.0000	17.2426	17.2426	5.3700e-003	0.0000	17.3768
<b>Total</b>	<b>0.0138</b>	<b>0.1624</b>	<b>0.0828</b>	<b>1.9000e-004</b>	<b>1.6000e-003</b>	<b>6.6300e-003</b>	<b>8.2300e-003</b>	<b>2.1000e-004</b>	<b>6.1000e-003</b>	<b>6.3100e-003</b>	<b>0.0000</b>	<b>17.2426</b>	<b>17.2426</b>	<b>5.3700e-003</b>	<b>0.0000</b>	<b>17.3768</b>

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**3.11 SPS - Grading - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.3000e-003	0.3243	0.0444	8.4000e-004	0.0176	1.3200e-003	0.0189	4.8300e-003	1.2700e-003	6.1000e-003	0.0000	79.9973	79.9973	5.1700e-003	0.0000	80.1264
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	4.7000e-004	4.9000e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.9370	0.9370	4.0000e-005	0.0000	0.9379
<b>Total</b>	<b>9.9600e-003</b>	<b>0.3248</b>	<b>0.0493</b>	<b>8.5000e-004</b>	<b>0.0186</b>	<b>1.3300e-003</b>	<b>0.0199</b>	<b>5.0800e-003</b>	<b>1.2800e-003</b>	<b>6.3600e-003</b>	<b>0.0000</b>	<b>80.9343</b>	<b>80.9343</b>	<b>5.2100e-003</b>	<b>0.0000</b>	<b>81.0643</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6000e-003	0.0000	1.6000e-003	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6600e-003	0.0900	0.1149	1.9000e-004		3.7200e-003	3.7200e-003		3.7200e-003	3.7200e-003	0.0000	17.2426	17.2426	5.3700e-003	0.0000	17.3768
<b>Total</b>	<b>4.6600e-003</b>	<b>0.0900</b>	<b>0.1149</b>	<b>1.9000e-004</b>	<b>1.6000e-003</b>	<b>3.7200e-003</b>	<b>5.3200e-003</b>	<b>2.1000e-004</b>	<b>3.7200e-003</b>	<b>3.9300e-003</b>	<b>0.0000</b>	<b>17.2426</b>	<b>17.2426</b>	<b>5.3700e-003</b>	<b>0.0000</b>	<b>17.3768</b>

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**3.11 SPS - Grading - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.3000e-003	0.3243	0.0444	8.4000e-004	0.0176	1.3200e-003	0.0189	4.8300e-003	1.2700e-003	6.1000e-003	0.0000	79.9973	79.9973	5.1700e-003	0.0000	80.1264
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	4.7000e-004	4.9000e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.9370	0.9370	4.0000e-005	0.0000	0.9379
<b>Total</b>	<b>9.9600e-003</b>	<b>0.3248</b>	<b>0.0493</b>	<b>8.5000e-004</b>	<b>0.0186</b>	<b>1.3300e-003</b>	<b>0.0199</b>	<b>5.0800e-003</b>	<b>1.2800e-003</b>	<b>6.3600e-003</b>	<b>0.0000</b>	<b>80.9343</b>	<b>80.9343</b>	<b>5.2100e-003</b>	<b>0.0000</b>	<b>81.0643</b>

**3.12 SPS - Construction - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0152	0.1636	0.1006	2.6000e-004		6.3600e-003	6.3600e-003		5.8500e-003	5.8500e-003	0.0000	23.9470	23.9470	7.4600e-003	0.0000	24.1334
<b>Total</b>	<b>0.0152</b>	<b>0.1636</b>	<b>0.1006</b>	<b>2.6000e-004</b>		<b>6.3600e-003</b>	<b>6.3600e-003</b>		<b>5.8500e-003</b>	<b>5.8500e-003</b>	<b>0.0000</b>	<b>23.9470</b>	<b>23.9470</b>	<b>7.4600e-003</b>	<b>0.0000</b>	<b>24.1334</b>

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**3.12 SPS - Construction - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7000e-004	4.1000e-004	4.2800e-003	1.0000e-005	8.4000e-004	1.0000e-005	8.5000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.8199	0.8199	3.0000e-005	0.0000	0.8207
<b>Total</b>	<b>5.7000e-004</b>	<b>4.1000e-004</b>	<b>4.2800e-003</b>	<b>1.0000e-005</b>	<b>8.4000e-004</b>	<b>1.0000e-005</b>	<b>8.5000e-004</b>	<b>2.2000e-004</b>	<b>1.0000e-005</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>0.8199</b>	<b>0.8199</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.8207</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.1700e-003	0.1046	0.1780	2.6000e-004		4.3500e-003	4.3500e-003		4.5800e-003	4.5800e-003	0.0000	23.9470	23.9470	7.4600e-003	0.0000	24.1334
<b>Total</b>	<b>2.1700e-003</b>	<b>0.1046</b>	<b>0.1780</b>	<b>2.6000e-004</b>		<b>4.3500e-003</b>	<b>4.3500e-003</b>		<b>4.5800e-003</b>	<b>4.5800e-003</b>	<b>0.0000</b>	<b>23.9470</b>	<b>23.9470</b>	<b>7.4600e-003</b>	<b>0.0000</b>	<b>24.1334</b>



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**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7000e-004	4.1000e-004	4.2800e-003	1.0000e-005	8.4000e-004	1.0000e-005	8.5000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.8199	0.8199	3.0000e-005	0.0000	0.8207
<b>Total</b>	<b>5.7000e-004</b>	<b>4.1000e-004</b>	<b>4.2800e-003</b>	<b>1.0000e-005</b>	<b>8.4000e-004</b>	<b>1.0000e-005</b>	<b>8.5000e-004</b>	<b>2.2000e-004</b>	<b>1.0000e-005</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>0.8199</b>	<b>0.8199</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.8207</b>

**3.13 SPS - Paving - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0160	0.1815	0.1346	2.6000e-004		7.8900e-003	7.8900e-003		7.2600e-003	7.2600e-003	0.0000	23.3092	23.3092	7.2600e-003	0.0000	23.4906
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0160</b>	<b>0.1815</b>	<b>0.1346</b>	<b>2.6000e-004</b>		<b>7.8900e-003</b>	<b>7.8900e-003</b>		<b>7.2600e-003</b>	<b>7.2600e-003</b>	<b>0.0000</b>	<b>23.3092</b>	<b>23.3092</b>	<b>7.2600e-003</b>	<b>0.0000</b>	<b>23.4906</b>

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**3.13 SPS - Paving - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	4.7000e-004	4.9000e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.9370	0.9370	4.0000e-005	0.0000	0.9379
<b>Total</b>	<b>6.6000e-004</b>	<b>4.7000e-004</b>	<b>4.9000e-003</b>	<b>1.0000e-005</b>	<b>9.6000e-004</b>	<b>1.0000e-005</b>	<b>9.7000e-004</b>	<b>2.5000e-004</b>	<b>1.0000e-005</b>	<b>2.6000e-004</b>	<b>0.0000</b>	<b>0.9370</b>	<b>0.9370</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.9379</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.2900e-003	0.1217	0.1770	2.6000e-004		5.5000e-003	5.5000e-003		5.5000e-003	5.5000e-003	0.0000	23.3092	23.3092	7.2600e-003	0.0000	23.4906
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>6.2900e-003</b>	<b>0.1217</b>	<b>0.1770</b>	<b>2.6000e-004</b>		<b>5.5000e-003</b>	<b>5.5000e-003</b>		<b>5.5000e-003</b>	<b>5.5000e-003</b>	<b>0.0000</b>	<b>23.3092</b>	<b>23.3092</b>	<b>7.2600e-003</b>	<b>0.0000</b>	<b>23.4906</b>

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**3.13 SPS - Paving - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	4.7000e-004	4.9000e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.9370	0.9370	4.0000e-005	0.0000	0.9379
<b>Total</b>	<b>6.6000e-004</b>	<b>4.7000e-004</b>	<b>4.9000e-003</b>	<b>1.0000e-005</b>	<b>9.6000e-004</b>	<b>1.0000e-005</b>	<b>9.7000e-004</b>	<b>2.5000e-004</b>	<b>1.0000e-005</b>	<b>2.6000e-004</b>	<b>0.0000</b>	<b>0.9370</b>	<b>0.9370</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.9379</b>

**3.14 SPS - Architectural - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3963					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0100e-003	0.0341	0.0148	5.0000e-005		1.2100e-003	1.2100e-003		1.1100e-003	1.1100e-003	0.0000	4.4418	4.4418	1.3800e-003	0.0000	4.4763
<b>Total</b>	<b>0.3993</b>	<b>0.0341</b>	<b>0.0148</b>	<b>5.0000e-005</b>		<b>1.2100e-003</b>	<b>1.2100e-003</b>		<b>1.1100e-003</b>	<b>1.1100e-003</b>	<b>0.0000</b>	<b>4.4418</b>	<b>4.4418</b>	<b>1.3800e-003</b>	<b>0.0000</b>	<b>4.4763</b>

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**3.14 SPS - Architectural - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.1000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0976	0.0976	0.0000	0.0000	0.0977
<b>Total</b>	<b>7.0000e-005</b>	<b>5.0000e-005</b>	<b>5.1000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0976</b>	<b>0.0976</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0977</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3963					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2000e-004	0.0200	0.0301	5.0000e-005		7.8000e-004	7.8000e-004		8.1000e-004	8.1000e-004	0.0000	4.4418	4.4418	1.3800e-003	0.0000	4.4763
<b>Total</b>	<b>0.3968</b>	<b>0.0200</b>	<b>0.0301</b>	<b>5.0000e-005</b>		<b>7.8000e-004</b>	<b>7.8000e-004</b>		<b>8.1000e-004</b>	<b>8.1000e-004</b>	<b>0.0000</b>	<b>4.4418</b>	<b>4.4418</b>	<b>1.3800e-003</b>	<b>0.0000</b>	<b>4.4763</b>

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**3.14 SPS - Architectural - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.1000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0976	0.0976	0.0000	0.0000	0.0977
<b>Total</b>	<b>7.0000e-005</b>	<b>5.0000e-005</b>	<b>5.1000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0976</b>	<b>0.0976</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0977</b>

**3.15 RTPS - Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2659	2.8380	1.7498	4.6600e-003		0.1104	0.1104		0.1015	0.1015	0.0000	418.8943	418.8943	0.1325	0.0000	422.2076
<b>Total</b>	<b>0.2659</b>	<b>2.8380</b>	<b>1.7498</b>	<b>4.6600e-003</b>		<b>0.1104</b>	<b>0.1104</b>		<b>0.1015</b>	<b>0.1015</b>	<b>0.0000</b>	<b>418.8943</b>	<b>418.8943</b>	<b>0.1325</b>	<b>0.0000</b>	<b>422.2076</b>

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**3.15 RTPS - Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0118	8.2500e-003	0.0863	2.0000e-004	0.0191	1.5000e-004	0.0193	5.0800e-003	1.4000e-004	5.2200e-003	0.0000	18.1255	18.1255	6.3000e-004	0.0000	18.1413
<b>Total</b>	<b>0.0118</b>	<b>8.2500e-003</b>	<b>0.0863</b>	<b>2.0000e-004</b>	<b>0.0191</b>	<b>1.5000e-004</b>	<b>0.0193</b>	<b>5.0800e-003</b>	<b>1.4000e-004</b>	<b>5.2200e-003</b>	<b>0.0000</b>	<b>18.1255</b>	<b>18.1255</b>	<b>6.3000e-004</b>	<b>0.0000</b>	<b>18.1413</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0589	2.0932	3.0932	4.6600e-003		0.0877	0.0877		0.0907	0.0907	0.0000	418.8938	418.8938	0.1325	0.0000	422.2071
<b>Total</b>	<b>0.0589</b>	<b>2.0932</b>	<b>3.0932</b>	<b>4.6600e-003</b>		<b>0.0877</b>	<b>0.0877</b>		<b>0.0907</b>	<b>0.0907</b>	<b>0.0000</b>	<b>418.8938</b>	<b>418.8938</b>	<b>0.1325</b>	<b>0.0000</b>	<b>422.2071</b>

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**3.15 RTPS - Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0118	8.2500e-003	0.0863	2.0000e-004	0.0191	1.5000e-004	0.0193	5.0800e-003	1.4000e-004	5.2200e-003	0.0000	18.1255	18.1255	6.3000e-004	0.0000	18.1413
<b>Total</b>	<b>0.0118</b>	<b>8.2500e-003</b>	<b>0.0863</b>	<b>2.0000e-004</b>	<b>0.0191</b>	<b>1.5000e-004</b>	<b>0.0193</b>	<b>5.0800e-003</b>	<b>1.4000e-004</b>	<b>5.2200e-003</b>	<b>0.0000</b>	<b>18.1255</b>	<b>18.1255</b>	<b>6.3000e-004</b>	<b>0.0000</b>	<b>18.1413</b>

**3.15 RTPS - Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2260	2.3097	1.5437	4.2700e-003		0.0892	0.0892		0.0820	0.0820	0.0000	375.3708	375.3708	0.1214	0.0000	378.4059
<b>Total</b>	<b>0.2260</b>	<b>2.3097</b>	<b>1.5437</b>	<b>4.2700e-003</b>		<b>0.0892</b>	<b>0.0892</b>		<b>0.0820</b>	<b>0.0820</b>	<b>0.0000</b>	<b>375.3708</b>	<b>375.3708</b>	<b>0.1214</b>	<b>0.0000</b>	<b>378.4059</b>

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**3.15 RTPS - Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.8300e-003	6.6600e-003	0.0705	1.8000e-004	0.0175	1.3000e-004	0.0176	4.6500e-003	1.2000e-004	4.7700e-003	0.0000	16.1009	16.1009	5.0000e-004	0.0000	16.1136
<b>Total</b>	<b>9.8300e-003</b>	<b>6.6600e-003</b>	<b>0.0705</b>	<b>1.8000e-004</b>	<b>0.0175</b>	<b>1.3000e-004</b>	<b>0.0176</b>	<b>4.6500e-003</b>	<b>1.2000e-004</b>	<b>4.7700e-003</b>	<b>0.0000</b>	<b>16.1009</b>	<b>16.1009</b>	<b>5.0000e-004</b>	<b>0.0000</b>	<b>16.1136</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0601	2.0319	2.8589	4.2700e-003		0.0844	0.0844		0.0868	0.0868	0.0000	375.3704	375.3704	0.1214	0.0000	378.4055
<b>Total</b>	<b>0.0601</b>	<b>2.0319</b>	<b>2.8589</b>	<b>4.2700e-003</b>		<b>0.0844</b>	<b>0.0844</b>		<b>0.0868</b>	<b>0.0868</b>	<b>0.0000</b>	<b>375.3704</b>	<b>375.3704</b>	<b>0.1214</b>	<b>0.0000</b>	<b>378.4055</b>



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**3.15 RTPS - Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.8300e-003	6.6600e-003	0.0705	1.8000e-004	0.0175	1.3000e-004	0.0176	4.6500e-003	1.2000e-004	4.7700e-003	0.0000	16.1009	16.1009	5.0000e-004	0.0000	16.1136
<b>Total</b>	<b>9.8300e-003</b>	<b>6.6600e-003</b>	<b>0.0705</b>	<b>1.8000e-004</b>	<b>0.0175</b>	<b>1.3000e-004</b>	<b>0.0176</b>	<b>4.6500e-003</b>	<b>1.2000e-004</b>	<b>4.7700e-003</b>	<b>0.0000</b>	<b>16.1009</b>	<b>16.1009</b>	<b>5.0000e-004</b>	<b>0.0000</b>	<b>16.1136</b>

**3.16 RTPS - Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.9000e-003	0.0915	0.0939	1.8000e-004		3.9400e-003	3.9400e-003		3.6200e-003	3.6200e-003	0.0000	15.8900	15.8900	5.1400e-003	0.0000	16.0185
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>8.9000e-003</b>	<b>0.0915</b>	<b>0.0939</b>	<b>1.8000e-004</b>		<b>3.9400e-003</b>	<b>3.9400e-003</b>		<b>3.6200e-003</b>	<b>3.6200e-003</b>	<b>0.0000</b>	<b>15.8900</b>	<b>15.8900</b>	<b>5.1400e-003</b>	<b>0.0000</b>	<b>16.0185</b>

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**3.16 RTPS - Paving - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.3000e-004	2.4900e-003	1.0000e-005	6.8000e-004	1.0000e-005	6.8000e-004	1.8000e-004	0.0000	1.9000e-004	0.0000	0.6052	0.6052	2.0000e-005	0.0000	0.6056
<b>Total</b>	<b>3.5000e-004</b>	<b>2.3000e-004</b>	<b>2.4900e-003</b>	<b>1.0000e-005</b>	<b>6.8000e-004</b>	<b>1.0000e-005</b>	<b>6.8000e-004</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>0.6052</b>	<b>0.6052</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.6056</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.4600e-003	0.0862	0.1254	1.8000e-004		3.9000e-003	3.9000e-003		3.9000e-003	3.9000e-003	0.0000	15.8900	15.8900	5.1400e-003	0.0000	16.0184
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>4.4600e-003</b>	<b>0.0862</b>	<b>0.1254</b>	<b>1.8000e-004</b>		<b>3.9000e-003</b>	<b>3.9000e-003</b>		<b>3.9000e-003</b>	<b>3.9000e-003</b>	<b>0.0000</b>	<b>15.8900</b>	<b>15.8900</b>	<b>5.1400e-003</b>	<b>0.0000</b>	<b>16.0184</b>

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**3.16 RTPS - Paving - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.3000e-004	2.4900e-003	1.0000e-005	6.8000e-004	1.0000e-005	6.8000e-004	1.8000e-004	0.0000	1.9000e-004	0.0000	0.6052	0.6052	2.0000e-005	0.0000	0.6056
<b>Total</b>	<b>3.5000e-004</b>	<b>2.3000e-004</b>	<b>2.4900e-003</b>	<b>1.0000e-005</b>	<b>6.8000e-004</b>	<b>1.0000e-005</b>	<b>6.8000e-004</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>0.6052</b>	<b>0.6052</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.6056</b>

**3.17 RTPS - Architectural Coating - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3963					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1600e-003	0.0204	0.0120	4.0000e-005		7.2000e-004	7.2000e-004		6.7000e-004	6.7000e-004	0.0000	3.9291	3.9291	1.2700e-003	0.0000	3.9609
<b>Total</b>	<b>0.3985</b>	<b>0.0204</b>	<b>0.0120</b>	<b>4.0000e-005</b>		<b>7.2000e-004</b>	<b>7.2000e-004</b>		<b>6.7000e-004</b>	<b>6.7000e-004</b>	<b>0.0000</b>	<b>3.9291</b>	<b>3.9291</b>	<b>1.2700e-003</b>	<b>0.0000</b>	<b>3.9609</b>

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**3.17 RTPS - Architectural Coating - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	3.0000e-005	3.7000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0890	0.0890	0.0000	0.0000	0.0891
<b>Total</b>	<b>5.0000e-005</b>	<b>3.0000e-005</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0890</b>	<b>0.0890</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0891</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3963					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.7000e-004	0.0227	0.0289	4.0000e-005		8.7000e-004	8.7000e-004		8.9000e-004	8.9000e-004	0.0000	3.9291	3.9291	1.2700e-003	0.0000	3.9609
<b>Total</b>	<b>0.3970</b>	<b>0.0227</b>	<b>0.0289</b>	<b>4.0000e-005</b>		<b>8.7000e-004</b>	<b>8.7000e-004</b>		<b>8.9000e-004</b>	<b>8.9000e-004</b>	<b>0.0000</b>	<b>3.9291</b>	<b>3.9291</b>	<b>1.2700e-003</b>	<b>0.0000</b>	<b>3.9609</b>

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**3.17 RTPS - Architectural Coating - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	3.0000e-005	3.7000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0890	0.0890	0.0000	0.0000	0.0891
<b>Total</b>	<b>5.0000e-005</b>	<b>3.0000e-005</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0890</b>	<b>0.0890</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0891</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.9000e-004	4.3700e-003	5.3200e-003	2.0000e-005	1.2700e-003	2.0000e-005	1.2900e-003	3.4000e-004	2.0000e-005	3.6000e-004	0.0000	1.8901	1.8901	1.2000e-004	0.0000	1.8931
Unmitigated	4.9000e-004	4.3700e-003	5.3200e-003	2.0000e-005	1.2700e-003	2.0000e-005	1.2900e-003	3.4000e-004	2.0000e-005	3.6000e-004	0.0000	1.8901	1.8901	1.2000e-004	0.0000	1.8931

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	1.14	1.14	1.14	3,328	3,328
Total	1.14	1.14	1.14	3,328	3,328

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.501303	0.035285	0.172289	0.136094	0.027047	0.006047	0.027345	0.084787	0.001820	0.001183	0.004865	0.000869	0.001067

5.0 Energy Detail

Historical Energy Use: N



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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	512430	193.7247	6.7400e-003	1.3900e-003	194.3088
<b>Total</b>		<b>193.7247</b>	<b>6.7400e-003</b>	<b>1.3900e-003</b>	<b>194.3088</b>



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**5.3 Energy by Land Use - Electricity**

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	512430	193.7247	6.7400e-003	1.3900e-003	194.3088
<b>Total</b>		<b>193.7247</b>	<b>6.7400e-003</b>	<b>1.3900e-003</b>	<b>194.3088</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2623	0.0000	5.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0200e-003	1.0200e-003	0.0000	0.0000	1.0900e-003
Unmitigated	0.2623	0.0000	5.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0200e-003	1.0200e-003	0.0000	0.0000	1.0900e-003

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**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0396					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2226					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0200e-003	1.0200e-003	0.0000	0.0000	1.0900e-003
<b>Total</b>	<b>0.2623</b>	<b>0.0000</b>	<b>5.3000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0200e-003</b>	<b>1.0200e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0900e-003</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0396					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2226					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0200e-003	1.0200e-003	0.0000	0.0000	1.0900e-003
<b>Total</b>	<b>0.2623</b>	<b>0.0000</b>	<b>5.3000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0200e-003</b>	<b>1.0200e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0900e-003</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.2030	0.0120	0.0000	0.5029
Unmitigated	0.2030	0.0120	0.0000	0.5029

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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	1	0.2030	0.0120	0.0000	0.5029
<b>Total</b>		<b>0.2030</b>	<b>0.0120</b>	<b>0.0000</b>	<b>0.5029</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	1	0.2030	0.0120	0.0000	0.5029
<b>Total</b>		<b>0.2030</b>	<b>0.0120</b>	<b>0.0000</b>	<b>0.5029</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	4	0	200	208	0.73	Diesel
Emergency Generator	2	0	200	38	0.73	Diesel

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**10.1 Stationary Sources**

**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (175 - 300 HP)	0.1365	0.3816	0.3481	6.6000e-004		0.0201	0.0201		0.0201	0.0201	0.0000	63.3647	63.3647	8.8800e-003	0.0000	63.5868
Emergency Generator - Diesel (25 - 50 HP)	0.0125	0.0650	0.0502	6.0000e-005		5.4800e-003	5.4800e-003		5.4800e-003	5.4800e-003	0.0000	5.7881	5.7881	8.1000e-004	0.0000	5.8084
<b>Total</b>	<b>0.1490</b>	<b>0.4467</b>	<b>0.3983</b>	<b>7.2000e-004</b>		<b>0.0256</b>	<b>0.0256</b>		<b>0.0256</b>	<b>0.0256</b>	<b>0.0000</b>	<b>69.1528</b>	<b>69.1528</b>	<b>9.6900e-003</b>	<b>0.0000</b>	<b>69.3952</b>

**11.0 Vegetation**

Modesto WWMP - Stanislaus County, Annual

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Modesto WWMP - Stanislaus County, Summer

**Modesto WWMP**  
**Stanislaus County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	57.00	1000sqft	1.31	57,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	46
<b>Climate Zone</b>	3			<b>Operational Year</b>	2020
<b>Utility Company</b>	Modesto Irrigation District				
<b>CO2 Intensity (lb/MW hr)</b>	833.46	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - From Total Pump Station Area - Request #9

Construction Phase - Based on information in Request #9 and January 2018 feedback from Carollo

Off-road Equipment - Based on Request #9. Off-highway trucks used for trucks for pipe delivery.

Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for pickup trucks.

Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for pickup trucks.

Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for pickup trucks.

Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for pickup trucks.

Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for pickup trucks.

Off-road Equipment - Based on Request #9. Off-highway trucks used for concrete delivery trucks.



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- Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for concrete delivery trucks.
- Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for pickup trucks.
- Off-road Equipment - Based on Request #9 and January communication with Carollo. Off-highway trucks used for pickup trucks.
- Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for pickup trucks.
- Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for concrete trucks and pickup trucks.
- Off-road Equipment - Based on Request #9 and January communication with Carollo. Off-highway trucks used for pickup trucks.
- Off-road Equipment - Based on Request #9 and January feedback from Carollo.
- Off-road Equipment - Based on Request #9 and January communication with Carollo. Off-highway trucks used for pickup trucks.
- Off-road Equipment - Based on Request #9 and January communication with Carollo. Off-highway trucks used for pickup trucks.
- Trips and VMT - Based on Request 9
- Grading - Based on information from Request 9, but divided evenly between available phases. 5 acres / 4 phases
- Vehicle Trips - 1 trip per day
- Vehicle Emission Factors -
- Vehicle Emission Factors -
- Vehicle Emission Factors -
- Energy Use - no natural gas
- Water And Wastewater - no indoor water use at pumpmt station
- Solid Waste - minimal solid waste generation
- Construction Off-road Equipment Mitigation - Added Tier 3 Mitigation
- Operational Off-Road Equipment - remove pump
- Stationary Sources - Emergency Generators and Fire Pumps - Based on PDR 2016
- Architectural Coating - No coating, just fencing.
- Area Coating - No coating, just fencing.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Parking	150.00	0.00
tblArchitecturalCoating	EF_Parking	150.00	0.00

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tblAreaCoating	Area_EF_Parking	150	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	22.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	37.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	NT24NG	3.84	0.00
tblEnergyUse	T24NG	17.11	0.00
tblGrading	AcresOfGrading	25.00	1.25
tblGrading	MaterialExported	0.00	11,500.00
tblGrading	MaterialExported	0.00	11,500.00





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tblOffRoadEquipment	PhaseName	RTPS - Construction
tblOffRoadEquipment	PhaseName	Alignment A
tblOffRoadEquipment	PhaseName	RTPS - Grading
tblOffRoadEquipment	PhaseName	SPS - Grading
tblOffRoadEquipment	PhaseName	Sutter Trunk - Lining
tblOffRoadEquipment	PhaseName	Alignment A
tblOffRoadEquipment	PhaseName	RTPS - Grading
tblOffRoadEquipment	PhaseName	RTPS - Site Prep
tblOffRoadEquipment	PhaseName	SPS - Grading
tblOffRoadEquipment	PhaseName	SPS - Construction
tblOffRoadEquipment	PhaseName	SPS - Paving
tblOffRoadEquipment	PhaseName	RTPS - Construction
tblOffRoadEquipment	PhaseName	RTPS - Paving
tblOffRoadEquipment	PhaseName	Sutter Trunk - Lining
tblOffRoadEquipment	PhaseName	Alignment A
tblOffRoadEquipment	PhaseName	Alignment B
tblOffRoadEquipment	PhaseName	Alignment C
tblOffRoadEquipment	PhaseName	Alignment D
tblOffRoadEquipment	PhaseName	Gravity System
tblOffRoadEquipment	PhaseName	RTPS - Grading
tblOffRoadEquipment	PhaseName	SPS - Site Prep
tblOffRoadEquipment	PhaseName	RTPS - Site Prep
tblOffRoadEquipment	PhaseName	SPS - Grading
tblOffRoadEquipment	PhaseName	SPS - Construction
tblOffRoadEquipment	PhaseName	SPS - Construction
tblOffRoadEquipment	PhaseName	SPS - Paving
tblOffRoadEquipment	PhaseName	SPS - Architectural

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tblOffRoadEquipment	PhaseName	RTPS - Construction
tblOffRoadEquipment	PhaseName	RTPS - Construction
tblOffRoadEquipment	PhaseName	RTPS - Paving
tblOffRoadEquipment	PhaseName	RTPS - Architectural Coating
tblOffRoadEquipment	PhaseName	Sutter Trunk - Lining
tblOffRoadEquipment	PhaseName	Alignment A
tblOffRoadEquipment	PhaseName	Alignment A
tblOffRoadEquipment	PhaseName	Alignment B
tblOffRoadEquipment	PhaseName	Alignment C
tblOffRoadEquipment	PhaseName	Alignment D
tblOffRoadEquipment	PhaseName	Gravity System
tblOffRoadEquipment	PhaseName	RTPS - Grading
tblOffRoadEquipment	PhaseName	RTPS - Grading
tblOffRoadEquipment	PhaseName	SPS - Site Prep
tblOffRoadEquipment	PhaseName	Alignment B
tblOffRoadEquipment	PhaseName	Alignment C
tblOffRoadEquipment	PhaseName	Alignment D
tblOffRoadEquipment	PhaseName	Gravity System
tblOffRoadEquipment	PhaseName	RTPS - Site Prep
tblOffRoadEquipment	PhaseName	SPS - Grading
tblOffRoadEquipment	PhaseName	SPS - Paving
tblOffRoadEquipment	PhaseName	SPS - Architectural
tblOffRoadEquipment	PhaseName	RTPS - Paving
tblOffRoadEquipment	PhaseName	RTPS - Architectural Coating
tblOffRoadEquipment	PhaseName	Sutter Trunk - Lining
tblOffRoadEquipment	PhaseName	Alignment A
tblOffRoadEquipment	PhaseName	SPS - Site Prep

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tblOffRoadEquipment	PhaseName		RTPS - Site Prep
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblSolidWaste	SolidWasteGenerationRate	70.68	1.00
tblTripsAndVMT	HaulingTripNumber	0.00	2,063.00
tblTripsAndVMT	HaulingTripNumber	0.00	2,063.00
tblTripsAndVMT	HaulingTripNumber	0.00	2,063.00
tblTripsAndVMT	VendorTripNumber	9.00	0.00
tblTripsAndVMT	VendorTripNumber	9.00	0.00
tblTripsAndVMT	WorkerTripNumber	24.00	10.00
tblTripsAndVMT	WorkerTripNumber	24.00	20.00
tblTripsAndVMT	WorkerTripNumber	15.00	5.00
tblTripsAndVMT	WorkerTripNumber	13.00	30.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	13.00	20.00
tblTripsAndVMT	WorkerTripNumber	13.00	20.00
tblTripsAndVMT	WorkerTripNumber	13.00	20.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblVehicleTrips	ST_TR	1.32	0.02
tblVehicleTrips	SU_TR	0.68	0.02
tblVehicleTrips	WD_TR	6.97	0.02
tblWater	IndoorWaterUseRate	13,181,250.00	0.00

Modesto WWMP - Stanislaus County, Summer

**2.0 Emissions Summary**

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	166.6934	172.3730	93.9786	0.3452	4.9002	5.4390	9.7044	1.2886	5.0108	5.7203	0.0000	35,405.5305	35,405.5305	6.5418	0.0000	35,563.0698
2019	8.6408	91.2592	61.9591	0.1675	2.0172	3.5173	5.5345	0.5149	3.2374	3.7523	0.0000	16,642.6539	16,642.6539	4.6801	0.0000	16,759.6549
2020	2.1660	21.1492	14.8404	0.0408	0.1643	0.8154	0.9797	0.0436	0.7502	0.7938	0.0000	3,956.3218	3,956.3218	1.2278	0.0000	3,987.0157
2021	159.4036	10.7905	11.3861	0.0221	0.0822	0.4637	0.5459	0.0218	0.4266	0.4484	0.0000	2,146.6375	2,146.6375	0.6690	0.0000	2,163.3622
<b>Maximum</b>	<b>166.6934</b>	<b>172.3730</b>	<b>93.9786</b>	<b>0.3452</b>	<b>4.9002</b>	<b>5.4390</b>	<b>9.7044</b>	<b>1.2886</b>	<b>5.0108</b>	<b>5.7203</b>	<b>0.0000</b>	<b>35,405.5305</b>	<b>35,405.5305</b>	<b>6.5418</b>	<b>0.0000</b>	<b>35,563.0698</b>





Modesto WWMP - Stanislaus County, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.4375	5.0000e-005	5.8600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0125	0.0125	3.0000e-005		0.0133
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	3.1700e-003	0.0235	0.0321	1.2000e-004	7.1500e-003	1.4000e-004	7.2800e-003	1.9200e-003	1.3000e-004	2.0500e-003		12.1203	12.1203	7.3000e-004		12.1385
Stationary	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.4407</b>	<b>0.0235</b>	<b>0.0380</b>	<b>1.2000e-004</b>	<b>7.1500e-003</b>	<b>1.6000e-004</b>	<b>7.3000e-003</b>	<b>1.9200e-003</b>	<b>1.5000e-004</b>	<b>2.0700e-003</b>		<b>12.1328</b>	<b>12.1328</b>	<b>7.6000e-004</b>	<b>0.0000</b>	<b>12.1518</b>

Modesto WWMP - Stanislaus County, Summer

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.4375	5.0000e-005	5.8600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0125	0.0125	3.0000e-005		0.0133
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	3.1700e-003	0.0235	0.0321	1.2000e-004	7.1500e-003	1.4000e-004	7.2800e-003	1.9200e-003	1.3000e-004	2.0500e-003		12.1203	12.1203	7.3000e-004		12.1385
Stationary	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.4407</b>	<b>0.0235</b>	<b>0.0380</b>	<b>1.2000e-004</b>	<b>7.1500e-003</b>	<b>1.6000e-004</b>	<b>7.3000e-003</b>	<b>1.9200e-003</b>	<b>1.5000e-004</b>	<b>2.0700e-003</b>		<b>12.1328</b>	<b>12.1328</b>	<b>7.6000e-004</b>	<b>0.0000</b>	<b>12.1518</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

Modesto WWMP - Stanislaus County, Summer

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	RTPS - Site Prep	Site Preparation	7/1/2018	8/3/2018	5	25	
2	Sutter Trunk - Lining	Trenching	7/1/2018	7/16/2018	5	11	
3	Alignment A	Trenching	7/1/2018	7/2/2019	5	262	
4	Alignment B	Trenching	7/1/2018	8/2/2018	5	24	
5	Alignment C	Trenching	7/1/2018	11/1/2018	5	89	
6	Alignment D	Trenching	7/1/2018	11/30/2018	5	110	
7	Gravity System	Trenching	7/1/2018	5/3/2019	5	220	
8	RTPS - Grading	Grading	8/3/2018	1/31/2019	5	130	
9	SPS - Site Prep	Site Preparation	9/1/2018	9/17/2018	5	11	
10	SPS - Grading	Grading	9/18/2018	10/19/2018	5	24	
11	SPS - Construction	Building Construction	10/20/2018	11/19/2018	5	21	
12	SPS - Paving	Paving	11/20/2018	12/21/2018	5	24	
13	SPS - Architectural	Architectural Coating	12/22/2018	12/28/2018	5	5	
14	RTPS - Construction	Building Construction	1/31/2019	11/2/2020	5	458	
15	RTPS - Paving	Paving	11/3/2021	11/25/2021	5	17	
16	RTPS - Architectural Coating	Architectural Coating	11/26/2021	12/2/2021	5	5	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 85,500; Non-Residential Outdoor: 28,500; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Modesto WWMP - Stanislaus County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
RTPS - Site Prep	Excavators	1	8.00	158	0.38
RTPS - Site Prep	Off-Highway Trucks	0	8.00	402	0.38
RTPS - Site Prep	Rubber Tired Loaders	1	8.00	203	0.36
RTPS - Site Prep	Scrapers	1	8.00	367	0.48
Sutter Trunk - Lining	Cranes	1	6.00	231	0.29
Sutter Trunk - Lining	Excavators	2	8.00	158	0.38
Sutter Trunk - Lining	Off-Highway Trucks	2	4.00	402	0.38
Sutter Trunk - Lining	Rubber Tired Loaders	1	8.00	203	0.36
Alignment A	Bore/Drill Rigs	1	8.00	221	0.50
Alignment A	Cranes	1	6.00	231	0.29
Alignment A	Excavators	1	8.00	158	0.38
Alignment A	Off-Highway Trucks	1	8.00	402	0.38
Alignment A	Off-Highway Trucks	0	8.00	402	0.38
Alignment A	Rubber Tired Loaders	1	8.00	203	0.36
Alignment B	Excavators	2	8.00	158	0.38
Alignment B	Off-Highway Trucks	2	4.00	402	0.38
Alignment B	Plate Compactors	1	8.00	8	0.43
Alignment C	Excavators	2	8.00	158	0.38
Alignment C	Off-Highway Trucks	2	4.00	402	0.38
Alignment C	Plate Compactors	1	8.00	8	0.43
Alignment D	Excavators	2	8.00	158	0.38
Alignment D	Off-Highway Trucks	2	4.00	402	0.38
Alignment D	Plate Compactors	1	8.00	8	0.43
Gravity System	Excavators	2	8.00	158	0.38
Gravity System	Off-Highway Trucks	2	4.00	402	0.38
Gravity System	Plate Compactors	1	8.00	8	0.43

Modesto WWMP - Stanislaus County, Summer

RTPS - Grading	Bore/Drill Rigs	1	8.00	221	0.50
RTPS - Grading	Cranes	1	8.00	231	0.29
RTPS - Grading	Excavators	2	8.00	158	0.38
RTPS - Grading	Off-Highway Trucks	1	8.00	402	0.38
RTPS - Grading	Off-Highway Trucks	0	8.00	402	0.38
RTPS - Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
SPS - Site Prep	Excavators	1	8.00	158	0.38
SPS - Site Prep	Off-Highway Trucks	0	8.00	402	0.38
SPS - Site Prep	Rubber Tired Loaders	1	8.00	203	0.36
SPS - Grading	Cranes	1	6.00	231	0.29
SPS - Grading	Excavators	1	8.00	158	0.38
SPS - Grading	Off-Highway Trucks	0	8.00	402	0.38
SPS - Grading	Rubber Tired Loaders	1	8.00	203	0.36
SPS - Construction	Excavators	1	8.00	158	0.38
SPS - Construction	Off-Highway Trucks	1	8.00	402	0.38
SPS - Construction	Off-Highway Trucks	1	4.00	402	0.38
SPS - Paving	Excavators	2	8.00	158	0.38
SPS - Paving	Off-Highway Trucks	0	8.00	402	0.38
SPS - Paving	Pavers	1	8.00	130	0.42
SPS - Paving	Rubber Tired Loaders	1	8.00	203	0.36
SPS - Architectural	Off-Highway Trucks	2	4.00	402	0.38
SPS - Architectural	Rubber Tired Loaders	1	8.00	203	0.36
RTPS - Construction	Aerial Lifts	1	8.00	63	0.31
RTPS - Construction	Cranes	1	8.00	231	0.29
RTPS - Construction	Excavators	1	8.00	158	0.38
RTPS - Construction	Off-Highway Trucks	0	8.00	402	0.38
RTPS - Construction	Off-Highway Trucks	2	8.00	402	0.38

Modesto WWMP - Stanislaus County, Summer

RTPS - Paving	Excavators	2	8.00	158	0.38
RTPS - Paving	Off-Highway Trucks	0	8.00	402	0.38
RTPS - Paving	Pavers	1	8.00	130	0.42
RTPS - Paving	Rubber Tired Loaders	1	8.00	203	0.36
RTPS - Architectural Coating	Off-Highway Trucks	2	4.00	402	0.38
RTPS - Architectural Coating	Rubber Tired Loaders	1	6.00	203	0.36

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
RTPS - Site Prep	4	10.00	0.00	2,063.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Sutter Trunk - Lining	6	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Alignment A	5	30.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Alignment B	5	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Alignment C	5	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Alignment D	5	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Gravity System	5	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
RTPS - Grading	7	20.00	0.00	2,063.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
SPS - Site Prep	3	10.00	0.00	2,063.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
SPS - Grading	4	10.00	0.00	2,063.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
SPS - Construction	3	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
SPS - Paving	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
SPS - Architectural	3	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
RTPS - Construction	5	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
RTPS - Paving	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
RTPS - Architectural Coating	3	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Modesto WWMP - Stanislaus County, Summer

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

**3.2 RTPS - Site Prep - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1277	0.0000	0.1277	0.0170	0.0000	0.0170			0.0000			0.0000
Off-Road	1.8659	22.6124	13.7978	0.0266		0.8900	0.8900		0.8188	0.8188		2,673.2464	2,673.2464	0.8322		2,694.0518
<b>Total</b>	<b>1.8659</b>	<b>22.6124</b>	<b>13.7978</b>	<b>0.0266</b>	<b>0.1277</b>	<b>0.8900</b>	<b>1.0177</b>	<b>0.0170</b>	<b>0.8188</b>	<b>0.8359</b>		<b>2,673.2464</b>	<b>2,673.2464</b>	<b>0.8322</b>		<b>2,694.0518</b>



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**3.2 RTPS - Site Prep - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7337	25.2991	3.3622	0.0678	1.4420	0.1050	1.5470	0.3952	0.1004	0.4956		7,115.0830	7,115.0830	0.4338		7,125.9280
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0618	0.0362	0.4686	9.5000e-004	0.0822	6.6000e-004	0.0828	0.0218	6.1000e-004	0.0224		94.2669	94.2669	3.6500e-003		94.3580
<b>Total</b>	<b>0.7954</b>	<b>25.3353</b>	<b>3.8308</b>	<b>0.0687</b>	<b>1.5242</b>	<b>0.1056</b>	<b>1.6298</b>	<b>0.4170</b>	<b>0.1010</b>	<b>0.5180</b>		<b>7,209.3499</b>	<b>7,209.3499</b>	<b>0.4375</b>		<b>7,220.2860</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1277	0.0000	0.1277	0.0170	0.0000	0.0170			0.0000			0.0000
Off-Road	0.6546	12.6551	15.3472	0.0266		0.5054	0.5054		0.5054	0.5054	0.0000	2,673.2464	2,673.2464	0.8322		2,694.0518
<b>Total</b>	<b>0.6546</b>	<b>12.6551</b>	<b>15.3472</b>	<b>0.0266</b>	<b>0.1277</b>	<b>0.5054</b>	<b>0.6331</b>	<b>0.0170</b>	<b>0.5054</b>	<b>0.5225</b>	<b>0.0000</b>	<b>2,673.2464</b>	<b>2,673.2464</b>	<b>0.8322</b>		<b>2,694.0518</b>

Modesto WWMP - Stanislaus County, Summer

**3.2 RTPS - Site Prep - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7337	25.2991	3.3622	0.0678	1.4420	0.1050	1.5470	0.3952	0.1004	0.4956		7,115.0830	7,115.0830	0.4338		7,125.9280
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0618	0.0362	0.4686	9.5000e-004	0.0822	6.6000e-004	0.0828	0.0218	6.1000e-004	0.0224		94.2669	94.2669	3.6500e-003		94.3580
<b>Total</b>	<b>0.7954</b>	<b>25.3353</b>	<b>3.8308</b>	<b>0.0687</b>	<b>1.5242</b>	<b>0.1056</b>	<b>1.6298</b>	<b>0.4170</b>	<b>0.1010</b>	<b>0.5180</b>		<b>7,209.3499</b>	<b>7,209.3499</b>	<b>0.4375</b>		<b>7,220.2860</b>

**3.3 Sutter Trunk - Lining - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2095	24.9573	14.3798	0.0341		1.0062	1.0062		0.9257	0.9257		3,433.0971	3,433.0971	1.0688		3,459.8164
<b>Total</b>	<b>2.2095</b>	<b>24.9573</b>	<b>14.3798</b>	<b>0.0341</b>		<b>1.0062</b>	<b>1.0062</b>		<b>0.9257</b>	<b>0.9257</b>		<b>3,433.0971</b>	<b>3,433.0971</b>	<b>1.0688</b>		<b>3,459.8164</b>

Modesto WWMP - Stanislaus County, Summer

**3.3 Sutter Trunk - Lining - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0309	0.0181	0.2343	4.7000e-004	0.0411	3.3000e-004	0.0414	0.0109	3.0000e-004	0.0112		47.1335	47.1335	1.8200e-003		47.1790
<b>Total</b>	<b>0.0309</b>	<b>0.0181</b>	<b>0.2343</b>	<b>4.7000e-004</b>	<b>0.0411</b>	<b>3.3000e-004</b>	<b>0.0414</b>	<b>0.0109</b>	<b>3.0000e-004</b>	<b>0.0112</b>		<b>47.1335</b>	<b>47.1335</b>	<b>1.8200e-003</b>		<b>47.1790</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5684	14.9655	22.1781	0.0341		0.6256	0.6256		0.6402	0.6402	0.0000	3,433.0971	3,433.0971	1.0688		3,459.8164
<b>Total</b>	<b>0.5684</b>	<b>14.9655</b>	<b>22.1781</b>	<b>0.0341</b>		<b>0.6256</b>	<b>0.6256</b>		<b>0.6402</b>	<b>0.6402</b>	<b>0.0000</b>	<b>3,433.0971</b>	<b>3,433.0971</b>	<b>1.0688</b>		<b>3,459.8164</b>

Modesto WWMP - Stanislaus County, Summer

**3.3 Sutter Trunk - Lining - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0309	0.0181	0.2343	4.7000e-004	0.0411	3.3000e-004	0.0414	0.0109	3.0000e-004	0.0112		47.1335	47.1335	1.8200e-003		47.1790
<b>Total</b>	<b>0.0309</b>	<b>0.0181</b>	<b>0.2343</b>	<b>4.7000e-004</b>	<b>0.0411</b>	<b>3.3000e-004</b>	<b>0.0414</b>	<b>0.0109</b>	<b>3.0000e-004</b>	<b>0.0112</b>		<b>47.1335</b>	<b>47.1335</b>	<b>1.8200e-003</b>		<b>47.1790</b>

**3.4 Alignment A - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2215	26.0575	13.1958	0.0384		0.9746	0.9746		0.8966	0.8966		3,857.8655	3,857.8655	1.2010		3,887.8906
<b>Total</b>	<b>2.2215</b>	<b>26.0575</b>	<b>13.1958</b>	<b>0.0384</b>		<b>0.9746</b>	<b>0.9746</b>		<b>0.8966</b>	<b>0.8966</b>		<b>3,857.8655</b>	<b>3,857.8655</b>	<b>1.2010</b>		<b>3,887.8906</b>

Modesto WWMP - Stanislaus County, Summer

**3.4 Alignment A - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.1853	0.1085	1.4058	2.8500e-003	0.2464	1.9700e-003	0.2484	0.0654	1.8200e-003	0.0672		282.8007	282.8007	0.0109			283.0741
<b>Total</b>	<b>0.1853</b>	<b>0.1085</b>	<b>1.4058</b>	<b>2.8500e-003</b>	<b>0.2464</b>	<b>1.9700e-003</b>	<b>0.2484</b>	<b>0.0654</b>	<b>1.8200e-003</b>	<b>0.0672</b>		<b>282.8007</b>	<b>282.8007</b>	<b>0.0109</b>			<b>283.0741</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	0.6752	17.0302	23.3272	0.0384		0.6785	0.6785		0.6931	0.6931	0.0000	3,857.8655	3,857.8655	1.2010			3,887.8906
<b>Total</b>	<b>0.6752</b>	<b>17.0302</b>	<b>23.3272</b>	<b>0.0384</b>		<b>0.6785</b>	<b>0.6785</b>		<b>0.6931</b>	<b>0.6931</b>	<b>0.0000</b>	<b>3,857.8655</b>	<b>3,857.8655</b>	<b>1.2010</b>			<b>3,887.8906</b>

Modesto WWMP - Stanislaus County, Summer

**3.4 Alignment A - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.1853	0.1085	1.4058	2.8500e-003	0.2464	1.9700e-003	0.2484	0.0654	1.8200e-003	0.0672		282.8007	282.8007	0.0109			283.0741
<b>Total</b>	<b>0.1853</b>	<b>0.1085</b>	<b>1.4058</b>	<b>2.8500e-003</b>	<b>0.2464</b>	<b>1.9700e-003</b>	<b>0.2484</b>	<b>0.0654</b>	<b>1.8200e-003</b>	<b>0.0672</b>		<b>282.8007</b>	<b>282.8007</b>	<b>0.0109</b>			<b>283.0741</b>

**3.4 Alignment A - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	2.0268	22.8948	12.7255	0.0383		0.8483	0.8483		0.7804	0.7804		3,793.3305	3,793.3305	1.2002			3,823.3348
<b>Total</b>	<b>2.0268</b>	<b>22.8948</b>	<b>12.7255</b>	<b>0.0383</b>		<b>0.8483</b>	<b>0.8483</b>		<b>0.7804</b>	<b>0.7804</b>		<b>3,793.3305</b>	<b>3,793.3305</b>	<b>1.2002</b>			<b>3,823.3348</b>

Modesto WWMP - Stanislaus County, Summer

**3.4 Alignment A - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.1675	0.0952	1.2475	2.7600e-003	0.2464	1.9000e-003	0.2484	0.0654	1.7500e-003	0.0671		274.7030	274.7030	9.6700e-003			274.9448
<b>Total</b>	<b>0.1675</b>	<b>0.0952</b>	<b>1.2475</b>	<b>2.7600e-003</b>	<b>0.2464</b>	<b>1.9000e-003</b>	<b>0.2484</b>	<b>0.0654</b>	<b>1.7500e-003</b>	<b>0.0671</b>		<b>274.7030</b>	<b>274.7030</b>	<b>9.6700e-003</b>			<b>274.9448</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	0.7133	17.7114	23.4501	0.0383		0.7040	0.7040		0.7165	0.7165	0.0000	3,793.3305	3,793.3305	1.2002			3,823.3348
<b>Total</b>	<b>0.7133</b>	<b>17.7114</b>	<b>23.4501</b>	<b>0.0383</b>		<b>0.7040</b>	<b>0.7040</b>		<b>0.7165</b>	<b>0.7165</b>	<b>0.0000</b>	<b>3,793.3305</b>	<b>3,793.3305</b>	<b>1.2002</b>			<b>3,823.3348</b>

Modesto WWMP - Stanislaus County, Summer

**3.4 Alignment A - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1675	0.0952	1.2475	2.7600e-003	0.2464	1.9000e-003	0.2484	0.0654	1.7500e-003	0.0671		274.7030	274.7030	9.6700e-003		274.9448
<b>Total</b>	<b>0.1675</b>	<b>0.0952</b>	<b>1.2475</b>	<b>2.7600e-003</b>	<b>0.2464</b>	<b>1.9000e-003</b>	<b>0.2484</b>	<b>0.0654</b>	<b>1.7500e-003</b>	<b>0.0671</b>		<b>274.7030</b>	<b>274.7030</b>	<b>9.6700e-003</b>		<b>274.9448</b>

**3.5 Alignment B - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3917	14.7681	10.9635	0.0240		0.6139	0.6139		0.5656	0.5656		2,403.2657	2,403.2657	0.7410		2,421.7910
<b>Total</b>	<b>1.3917</b>	<b>14.7681</b>	<b>10.9635</b>	<b>0.0240</b>		<b>0.6139</b>	<b>0.6139</b>		<b>0.5656</b>	<b>0.5656</b>		<b>2,403.2657</b>	<b>2,403.2657</b>	<b>0.7410</b>		<b>2,421.7910</b>



Modesto WWMP - Stanislaus County, Summer

**3.5 Alignment B - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0618	0.0362	0.4686	9.5000e-004	0.0822	6.6000e-004	0.0828	0.0218	6.1000e-004	0.0224		94.2669	94.2669	3.6500e-003		94.3580
<b>Total</b>	<b>0.0618</b>	<b>0.0362</b>	<b>0.4686</b>	<b>9.5000e-004</b>	<b>0.0822</b>	<b>6.6000e-004</b>	<b>0.0828</b>	<b>0.0218</b>	<b>6.1000e-004</b>	<b>0.0224</b>		<b>94.2669</b>	<b>94.2669</b>	<b>3.6500e-003</b>		<b>94.3580</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3074	9.9194	16.5230	0.0240		0.4342	0.4342		0.4488	0.4488	0.0000	2,403.2657	2,403.2657	0.7410		2,421.7910
<b>Total</b>	<b>0.3074</b>	<b>9.9194</b>	<b>16.5230</b>	<b>0.0240</b>		<b>0.4342</b>	<b>0.4342</b>		<b>0.4488</b>	<b>0.4488</b>	<b>0.0000</b>	<b>2,403.2657</b>	<b>2,403.2657</b>	<b>0.7410</b>		<b>2,421.7910</b>

Modesto WWMP - Stanislaus County, Summer

**3.5 Alignment B - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0618	0.0362	0.4686	9.5000e-004	0.0822	6.6000e-004	0.0828	0.0218	6.1000e-004	0.0224		94.2669	94.2669	3.6500e-003		94.3580
<b>Total</b>	<b>0.0618</b>	<b>0.0362</b>	<b>0.4686</b>	<b>9.5000e-004</b>	<b>0.0822</b>	<b>6.6000e-004</b>	<b>0.0828</b>	<b>0.0218</b>	<b>6.1000e-004</b>	<b>0.0224</b>		<b>94.2669</b>	<b>94.2669</b>	<b>3.6500e-003</b>		<b>94.3580</b>

**3.6 Alignment C - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3917	14.7681	10.9635	0.0240		0.6139	0.6139		0.5656	0.5656		2,403.2657	2,403.2657	0.7410		2,421.7910
<b>Total</b>	<b>1.3917</b>	<b>14.7681</b>	<b>10.9635</b>	<b>0.0240</b>		<b>0.6139</b>	<b>0.6139</b>		<b>0.5656</b>	<b>0.5656</b>		<b>2,403.2657</b>	<b>2,403.2657</b>	<b>0.7410</b>		<b>2,421.7910</b>

Modesto WWMP - Stanislaus County, Summer

**3.6 Alignment C - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1235	0.0724	0.9372	1.9000e-003	0.1643	1.3100e-003	0.1656	0.0436	1.2100e-003	0.0448		188.5338	188.5338	7.2900e-003		188.7161
<b>Total</b>	<b>0.1235</b>	<b>0.0724</b>	<b>0.9372</b>	<b>1.9000e-003</b>	<b>0.1643</b>	<b>1.3100e-003</b>	<b>0.1656</b>	<b>0.0436</b>	<b>1.2100e-003</b>	<b>0.0448</b>		<b>188.5338</b>	<b>188.5338</b>	<b>7.2900e-003</b>		<b>188.7161</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3074	9.9194	16.5230	0.0240		0.4342	0.4342		0.4488	0.4488	0.0000	2,403.2657	2,403.2657	0.7410		2,421.7910
<b>Total</b>	<b>0.3074</b>	<b>9.9194</b>	<b>16.5230</b>	<b>0.0240</b>		<b>0.4342</b>	<b>0.4342</b>		<b>0.4488</b>	<b>0.4488</b>	<b>0.0000</b>	<b>2,403.2657</b>	<b>2,403.2657</b>	<b>0.7410</b>		<b>2,421.7910</b>

Modesto WWMP - Stanislaus County, Summer

**3.6 Alignment C - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1235	0.0724	0.9372	1.9000e-003	0.1643	1.3100e-003	0.1656	0.0436	1.2100e-003	0.0448		188.5338	188.5338	7.2900e-003		188.7161
<b>Total</b>	<b>0.1235</b>	<b>0.0724</b>	<b>0.9372</b>	<b>1.9000e-003</b>	<b>0.1643</b>	<b>1.3100e-003</b>	<b>0.1656</b>	<b>0.0436</b>	<b>1.2100e-003</b>	<b>0.0448</b>		<b>188.5338</b>	<b>188.5338</b>	<b>7.2900e-003</b>		<b>188.7161</b>

**3.7 Alignment D - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3917	14.7681	10.9635	0.0240		0.6139	0.6139		0.5656	0.5656		2,403.2657	2,403.2657	0.7410		2,421.7910
<b>Total</b>	<b>1.3917</b>	<b>14.7681</b>	<b>10.9635</b>	<b>0.0240</b>		<b>0.6139</b>	<b>0.6139</b>		<b>0.5656</b>	<b>0.5656</b>		<b>2,403.2657</b>	<b>2,403.2657</b>	<b>0.7410</b>		<b>2,421.7910</b>

Modesto WWMP - Stanislaus County, Summer

**3.7 Alignment D - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1235	0.0724	0.9372	1.9000e-003	0.1643	1.3100e-003	0.1656	0.0436	1.2100e-003	0.0448		188.5338	188.5338	7.2900e-003		188.7161
<b>Total</b>	<b>0.1235</b>	<b>0.0724</b>	<b>0.9372</b>	<b>1.9000e-003</b>	<b>0.1643</b>	<b>1.3100e-003</b>	<b>0.1656</b>	<b>0.0436</b>	<b>1.2100e-003</b>	<b>0.0448</b>		<b>188.5338</b>	<b>188.5338</b>	<b>7.2900e-003</b>		<b>188.7161</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3074	9.9194	16.5230	0.0240		0.4342	0.4342		0.4488	0.4488	0.0000	2,403.2657	2,403.2657	0.7410		2,421.7910
<b>Total</b>	<b>0.3074</b>	<b>9.9194</b>	<b>16.5230</b>	<b>0.0240</b>		<b>0.4342</b>	<b>0.4342</b>		<b>0.4488</b>	<b>0.4488</b>	<b>0.0000</b>	<b>2,403.2657</b>	<b>2,403.2657</b>	<b>0.7410</b>		<b>2,421.7910</b>

Modesto WWMP - Stanislaus County, Summer

**3.7 Alignment D - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1235	0.0724	0.9372	1.9000e-003	0.1643	1.3100e-003	0.1656	0.0436	1.2100e-003	0.0448		188.5338	188.5338	7.2900e-003		188.7161
<b>Total</b>	<b>0.1235</b>	<b>0.0724</b>	<b>0.9372</b>	<b>1.9000e-003</b>	<b>0.1643</b>	<b>1.3100e-003</b>	<b>0.1656</b>	<b>0.0436</b>	<b>1.2100e-003</b>	<b>0.0448</b>		<b>188.5338</b>	<b>188.5338</b>	<b>7.2900e-003</b>		<b>188.7161</b>

**3.8 Gravity System - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3917	14.7681	10.9635	0.0240		0.6139	0.6139		0.5656	0.5656		2,403.2657	2,403.2657	0.7410		2,421.7910
<b>Total</b>	<b>1.3917</b>	<b>14.7681</b>	<b>10.9635</b>	<b>0.0240</b>		<b>0.6139</b>	<b>0.6139</b>		<b>0.5656</b>	<b>0.5656</b>		<b>2,403.2657</b>	<b>2,403.2657</b>	<b>0.7410</b>		<b>2,421.7910</b>

Modesto WWMP - Stanislaus County, Summer

**3.8 Gravity System - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1235	0.0724	0.9372	1.9000e-003	0.1643	1.3100e-003	0.1656	0.0436	1.2100e-003	0.0448		188.5338	188.5338	7.2900e-003		188.7161
<b>Total</b>	<b>0.1235</b>	<b>0.0724</b>	<b>0.9372</b>	<b>1.9000e-003</b>	<b>0.1643</b>	<b>1.3100e-003</b>	<b>0.1656</b>	<b>0.0436</b>	<b>1.2100e-003</b>	<b>0.0448</b>		<b>188.5338</b>	<b>188.5338</b>	<b>7.2900e-003</b>		<b>188.7161</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3074	9.9194	16.5230	0.0240		0.4342	0.4342		0.4488	0.4488	0.0000	2,403.2657	2,403.2657	0.7410		2,421.7910
<b>Total</b>	<b>0.3074</b>	<b>9.9194</b>	<b>16.5230</b>	<b>0.0240</b>		<b>0.4342</b>	<b>0.4342</b>		<b>0.4488</b>	<b>0.4488</b>	<b>0.0000</b>	<b>2,403.2657</b>	<b>2,403.2657</b>	<b>0.7410</b>		<b>2,421.7910</b>

Modesto WWMP - Stanislaus County, Summer

**3.8 Gravity System - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1235	0.0724	0.9372	1.9000e-003	0.1643	1.3100e-003	0.1656	0.0436	1.2100e-003	0.0448		188.5338	188.5338	7.2900e-003		188.7161
<b>Total</b>	<b>0.1235</b>	<b>0.0724</b>	<b>0.9372</b>	<b>1.9000e-003</b>	<b>0.1643</b>	<b>1.3100e-003</b>	<b>0.1656</b>	<b>0.0436</b>	<b>1.2100e-003</b>	<b>0.0448</b>		<b>188.5338</b>	<b>188.5338</b>	<b>7.2900e-003</b>		<b>188.7161</b>

**3.8 Gravity System - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2715	12.8046	10.7337	0.0240		0.5299	0.5299		0.4883	0.4883		2,364.4621	2,364.4621	0.7408		2,382.9811
<b>Total</b>	<b>1.2715</b>	<b>12.8046</b>	<b>10.7337</b>	<b>0.0240</b>		<b>0.5299</b>	<b>0.5299</b>		<b>0.4883</b>	<b>0.4883</b>		<b>2,364.4621</b>	<b>2,364.4621</b>	<b>0.7408</b>		<b>2,382.9811</b>



Modesto WWMP - Stanislaus County, Summer

**3.8 Gravity System - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1117	0.0634	0.8317	1.8400e-003	0.1643	1.2700e-003	0.1656	0.0436	1.1700e-003	0.0448		183.1354	183.1354	6.4500e-003		183.2965
<b>Total</b>	<b>0.1117</b>	<b>0.0634</b>	<b>0.8317</b>	<b>1.8400e-003</b>	<b>0.1643</b>	<b>1.2700e-003</b>	<b>0.1656</b>	<b>0.0436</b>	<b>1.1700e-003</b>	<b>0.0448</b>		<b>183.1354</b>	<b>183.1354</b>	<b>6.4500e-003</b>		<b>183.2965</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3455	10.6006	16.6460	0.0240		0.4597	0.4597		0.4722	0.4722	0.0000	2,364.4621	2,364.4621	0.7408		2,382.9811
<b>Total</b>	<b>0.3455</b>	<b>10.6006</b>	<b>16.6460</b>	<b>0.0240</b>		<b>0.4597</b>	<b>0.4597</b>		<b>0.4722</b>	<b>0.4722</b>	<b>0.0000</b>	<b>2,364.4621</b>	<b>2,364.4621</b>	<b>0.7408</b>		<b>2,382.9811</b>

Modesto WWMP - Stanislaus County, Summer

**3.8 Gravity System - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1117	0.0634	0.8317	1.8400e-003	0.1643	1.2700e-003	0.1656	0.0436	1.1700e-003	0.0448		183.1354	183.1354	6.4500e-003		183.2965
<b>Total</b>	<b>0.1117</b>	<b>0.0634</b>	<b>0.8317</b>	<b>1.8400e-003</b>	<b>0.1643</b>	<b>1.2700e-003</b>	<b>0.1656</b>	<b>0.0436</b>	<b>1.1700e-003</b>	<b>0.0448</b>		<b>183.1354</b>	<b>183.1354</b>	<b>6.4500e-003</b>		<b>183.2965</b>

**3.9 RTPS - Grading - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0246	0.0000	0.0246	3.2700e-003	0.0000	3.2700e-003			0.0000			0.0000
Off-Road	2.7558	30.7931	20.0400	0.0449		1.3905	1.3905		1.2793	1.2793		4,519.2895	4,519.2895	1.4069		4,554.4624
<b>Total</b>	<b>2.7558</b>	<b>30.7931</b>	<b>20.0400</b>	<b>0.0449</b>	<b>0.0246</b>	<b>1.3905</b>	<b>1.4151</b>	<b>3.2700e-003</b>	<b>1.2793</b>	<b>1.2826</b>		<b>4,519.2895</b>	<b>4,519.2895</b>	<b>1.4069</b>		<b>4,554.4624</b>

Modesto WWMP - Stanislaus County, Summer

**3.9 RTPS - Grading - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1411	4.8652	0.6466	0.0130	0.3224	0.0202	0.3426	0.0871	0.0193	0.1064		1,368.2852	1,368.2852	0.0834		1,370.3708
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1235	0.0724	0.9372	1.9000e-003	0.1643	1.3100e-003	0.1656	0.0436	1.2100e-003	0.0448		188.5338	188.5338	7.2900e-003		188.7161
<b>Total</b>	<b>0.2646</b>	<b>4.9376</b>	<b>1.5838</b>	<b>0.0149</b>	<b>0.4867</b>	<b>0.0215</b>	<b>0.5082</b>	<b>0.1306</b>	<b>0.0205</b>	<b>0.1512</b>		<b>1,556.8190</b>	<b>1,556.8190</b>	<b>0.0907</b>		<b>1,559.0868</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0246	0.0000	0.0246	3.2700e-003	0.0000	3.2700e-003			0.0000			0.0000
Off-Road	0.8350	20.6507	29.3462	0.0449		0.9528	0.9528		0.9674	0.9674	0.0000	4,519.2895	4,519.2895	1.4069		4,554.4624
<b>Total</b>	<b>0.8350</b>	<b>20.6507</b>	<b>29.3462</b>	<b>0.0449</b>	<b>0.0246</b>	<b>0.9528</b>	<b>0.9773</b>	<b>3.2700e-003</b>	<b>0.9674</b>	<b>0.9706</b>	<b>0.0000</b>	<b>4,519.2895</b>	<b>4,519.2895</b>	<b>1.4069</b>		<b>4,554.4624</b>

Modesto WWMP - Stanislaus County, Summer

**3.9 RTPS - Grading - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1411	4.8652	0.6466	0.0130	0.3224	0.0202	0.3426	0.0871	0.0193	0.1064		1,368.2852	1,368.2852	0.0834		1,370.3708
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1235	0.0724	0.9372	1.9000e-003	0.1643	1.3100e-003	0.1656	0.0436	1.2100e-003	0.0448		188.5338	188.5338	7.2900e-003		188.7161
<b>Total</b>	<b>0.2646</b>	<b>4.9376</b>	<b>1.5838</b>	<b>0.0149</b>	<b>0.4867</b>	<b>0.0215</b>	<b>0.5082</b>	<b>0.1306</b>	<b>0.0205</b>	<b>0.1512</b>		<b>1,556.8190</b>	<b>1,556.8190</b>	<b>0.0907</b>		<b>1,559.0868</b>

**3.9 RTPS - Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0246	0.0000	0.0246	3.2700e-003	0.0000	3.2700e-003			0.0000			0.0000
Off-Road	2.4804	26.9268	19.4885	0.0449		1.1915	1.1915		1.0962	1.0962		4,443.5369	4,443.5369	1.4059		4,478.6841
<b>Total</b>	<b>2.4804</b>	<b>26.9268</b>	<b>19.4885</b>	<b>0.0449</b>	<b>0.0246</b>	<b>1.1915</b>	<b>1.2161</b>	<b>3.2700e-003</b>	<b>1.0962</b>	<b>1.0995</b>		<b>4,443.5369</b>	<b>4,443.5369</b>	<b>1.4059</b>		<b>4,478.6841</b>

Modesto WWMP - Stanislaus County, Summer

**3.9 RTPS - Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1344	4.5986	0.6264	0.0129	1.2533	0.0183	1.2716	0.3156	0.0175	0.3331		1,353.1824	1,353.1824	0.0817		1,355.2242
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1117	0.0634	0.8317	1.8400e-003	0.1643	1.2700e-003	0.1656	0.0436	1.1700e-003	0.0448		183.1354	183.1354	6.4500e-003		183.2965
<b>Total</b>	<b>0.2460</b>	<b>4.6620</b>	<b>1.4580</b>	<b>0.0147</b>	<b>1.4176</b>	<b>0.0196</b>	<b>1.4372</b>	<b>0.3591</b>	<b>0.0187</b>	<b>0.3778</b>		<b>1,536.3178</b>	<b>1,536.3178</b>	<b>0.0881</b>		<b>1,538.5207</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0246	0.0000	0.0246	3.2700e-003	0.0000	3.2700e-003			0.0000			0.0000
Off-Road	0.8731	21.3319	29.4691	0.0449		0.9782	0.9782		0.9908	0.9908	0.0000	4,443.5369	4,443.5369	1.4059		4,478.6841
<b>Total</b>	<b>0.8731</b>	<b>21.3319</b>	<b>29.4691</b>	<b>0.0449</b>	<b>0.0246</b>	<b>0.9782</b>	<b>1.0028</b>	<b>3.2700e-003</b>	<b>0.9908</b>	<b>0.9940</b>	<b>0.0000</b>	<b>4,443.5369</b>	<b>4,443.5369</b>	<b>1.4059</b>		<b>4,478.6841</b>

Modesto WWMP - Stanislaus County, Summer

**3.9 RTPS - Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1344	4.5986	0.6264	0.0129	1.2533	0.0183	1.2716	0.3156	0.0175	0.3331		1,353.1824	1,353.1824	0.0817		1,355.2242
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1117	0.0634	0.8317	1.8400e-003	0.1643	1.2700e-003	0.1656	0.0436	1.1700e-003	0.0448		183.1354	183.1354	6.4500e-003		183.2965
<b>Total</b>	<b>0.2460</b>	<b>4.6620</b>	<b>1.4580</b>	<b>0.0147</b>	<b>1.4176</b>	<b>0.0196</b>	<b>1.4372</b>	<b>0.3591</b>	<b>0.0187</b>	<b>0.3778</b>		<b>1,536.3178</b>	<b>1,536.3178</b>	<b>0.0881</b>		<b>1,538.5207</b>

**3.10 SPS - Site Prep - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2902	0.0000	0.2902	0.0387	0.0000	0.0387			0.0000			0.0000
Off-Road	0.7190	8.4208	5.0111	0.0114		0.3307	0.3307		0.3043	0.3043		1,148.4475	1,148.4475	0.3575		1,157.3857
<b>Total</b>	<b>0.7190</b>	<b>8.4208</b>	<b>5.0111</b>	<b>0.0114</b>	<b>0.2902</b>	<b>0.3307</b>	<b>0.6209</b>	<b>0.0387</b>	<b>0.3043</b>	<b>0.3430</b>		<b>1,148.4475</b>	<b>1,148.4475</b>	<b>0.3575</b>		<b>1,157.3857</b>

Modesto WWMP - Stanislaus County, Summer

**3.10 SPS - Site Prep - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.6674	57.4979	7.6413	0.1540	3.2773	0.2385	3.5158	0.8981	0.2282	1.1263		16,170.6432	16,170.6432	0.9859		16,195.2908
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0618	0.0362	0.4686	9.5000e-004	0.0822	6.6000e-004	0.0828	0.0218	6.1000e-004	0.0224		94.2669	94.2669	3.6500e-003		94.3580
<b>Total</b>	<b>1.7292</b>	<b>57.5341</b>	<b>8.1099</b>	<b>0.1549</b>	<b>3.3595</b>	<b>0.2392</b>	<b>3.5986</b>	<b>0.9199</b>	<b>0.2288</b>	<b>1.1487</b>		<b>16,264.9101</b>	<b>16,264.9101</b>	<b>0.9896</b>		<b>16,289.6489</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2902	0.0000	0.2902	0.0387	0.0000	0.0387			0.0000			0.0000
Off-Road	0.2817	5.4470	7.2692	0.0114		0.2320	0.2320		0.2320	0.2320	0.0000	1,148.4475	1,148.4475	0.3575		1,157.3857
<b>Total</b>	<b>0.2817</b>	<b>5.4470</b>	<b>7.2692</b>	<b>0.0114</b>	<b>0.2902</b>	<b>0.2320</b>	<b>0.5222</b>	<b>0.0387</b>	<b>0.2320</b>	<b>0.2707</b>	<b>0.0000</b>	<b>1,148.4475</b>	<b>1,148.4475</b>	<b>0.3575</b>		<b>1,157.3857</b>

Modesto WWMP - Stanislaus County, Summer

**3.10 SPS - Site Prep - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.6674	57.4979	7.6413	0.1540	3.2773	0.2385	3.5158	0.8981	0.2282	1.1263		16,170.6432	16,170.6432	0.9859		16,195.2908
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0618	0.0362	0.4686	9.5000e-004	0.0822	6.6000e-004	0.0828	0.0218	6.1000e-004	0.0224		94.2669	94.2669	3.6500e-003		94.3580
<b>Total</b>	<b>1.7292</b>	<b>57.5341</b>	<b>8.1099</b>	<b>0.1549</b>	<b>3.3595</b>	<b>0.2392</b>	<b>3.5986</b>	<b>0.9199</b>	<b>0.2288</b>	<b>1.1487</b>		<b>16,264.9101</b>	<b>16,264.9101</b>	<b>0.9896</b>		<b>16,289.6489</b>

**3.11 SPS - Grading - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1330	0.0000	0.1330	0.0177	0.0000	0.0177			0.0000			0.0000
Off-Road	1.1470	13.5364	6.9025	0.0157		0.5522	0.5522		0.5080	0.5080		1,583.8960	1,583.8960	0.4931		1,596.2232
<b>Total</b>	<b>1.1470</b>	<b>13.5364</b>	<b>6.9025</b>	<b>0.0157</b>	<b>0.1330</b>	<b>0.5522</b>	<b>0.6851</b>	<b>0.0177</b>	<b>0.5080</b>	<b>0.5257</b>		<b>1,583.8960</b>	<b>1,583.8960</b>	<b>0.4931</b>		<b>1,596.2232</b>



Modesto WWMP - Stanislaus County, Summer

**3.11 SPS - Grading - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7642	26.3532	3.5023	0.0706	1.5021	0.1093	1.6114	0.4116	0.1046	0.5162		7,411.5448	7,411.5448	0.4519		7,422.8416
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0618	0.0362	0.4686	9.5000e-004	0.0822	6.6000e-004	0.0828	0.0218	6.1000e-004	0.0224		94.2669	94.2669	3.6500e-003		94.3580
<b>Total</b>	<b>0.8260</b>	<b>26.3894</b>	<b>3.9709</b>	<b>0.0715</b>	<b>1.5843</b>	<b>0.1100</b>	<b>1.6942</b>	<b>0.4334</b>	<b>0.1052</b>	<b>0.5386</b>		<b>7,505.8117</b>	<b>7,505.8117</b>	<b>0.4555</b>		<b>7,517.1997</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1330	0.0000	0.1330	0.0177	0.0000	0.0177			0.0000			0.0000
Off-Road	0.3881	7.5028	9.5731	0.0157		0.3100	0.3100		0.3100	0.3100	0.0000	1,583.8960	1,583.8960	0.4931		1,596.2232
<b>Total</b>	<b>0.3881</b>	<b>7.5028</b>	<b>9.5731</b>	<b>0.0157</b>	<b>0.1330</b>	<b>0.3100</b>	<b>0.4430</b>	<b>0.0177</b>	<b>0.3100</b>	<b>0.3277</b>	<b>0.0000</b>	<b>1,583.8960</b>	<b>1,583.8960</b>	<b>0.4931</b>		<b>1,596.2232</b>

Modesto WWMP - Stanislaus County, Summer

**3.11 SPS - Grading - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7642	26.3532	3.5023	0.0706	1.5021	0.1093	1.6114	0.4116	0.1046	0.5162		7,411.5448	7,411.5448	0.4519		7,422.8416
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0618	0.0362	0.4686	9.5000e-004	0.0822	6.6000e-004	0.0828	0.0218	6.1000e-004	0.0224		94.2669	94.2669	3.6500e-003		94.3580
<b>Total</b>	<b>0.8260</b>	<b>26.3894</b>	<b>3.9709</b>	<b>0.0715</b>	<b>1.5843</b>	<b>0.1100</b>	<b>1.6942</b>	<b>0.4334</b>	<b>0.1052</b>	<b>0.5386</b>		<b>7,505.8117</b>	<b>7,505.8117</b>	<b>0.4555</b>		<b>7,517.1997</b>

**3.12 SPS - Construction - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4491	15.5834	9.5781	0.0250		0.6059	0.6059		0.5575	0.5575		2,514.0092	2,514.0092	0.7827		2,533.5753
<b>Total</b>	<b>1.4491</b>	<b>15.5834</b>	<b>9.5781</b>	<b>0.0250</b>		<b>0.6059</b>	<b>0.6059</b>		<b>0.5575</b>	<b>0.5575</b>		<b>2,514.0092</b>	<b>2,514.0092</b>	<b>0.7827</b>		<b>2,533.5753</b>

Modesto WWMP - Stanislaus County, Summer

**3.12 SPS - Construction - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0618	0.0362	0.4686	9.5000e-004	0.0822	6.6000e-004	0.0828	0.0218	6.1000e-004	0.0224		94.2669	94.2669	3.6500e-003		94.3580
<b>Total</b>	<b>0.0618</b>	<b>0.0362</b>	<b>0.4686</b>	<b>9.5000e-004</b>	<b>0.0822</b>	<b>6.6000e-004</b>	<b>0.0828</b>	<b>0.0218</b>	<b>6.1000e-004</b>	<b>0.0224</b>		<b>94.2669</b>	<b>94.2669</b>	<b>3.6500e-003</b>		<b>94.3580</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2070	9.9656	16.9485	0.0250		0.4142	0.4142		0.4360	0.4360	0.0000	2,514.0092	2,514.0092	0.7827		2,533.5753
<b>Total</b>	<b>0.2070</b>	<b>9.9656</b>	<b>16.9485</b>	<b>0.0250</b>		<b>0.4142</b>	<b>0.4142</b>		<b>0.4360</b>	<b>0.4360</b>	<b>0.0000</b>	<b>2,514.0092</b>	<b>2,514.0092</b>	<b>0.7827</b>		<b>2,533.5753</b>

Modesto WWMP - Stanislaus County, Summer

**3.12 SPS - Construction - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0618	0.0362	0.4686	9.5000e-004	0.0822	6.6000e-004	0.0828	0.0218	6.1000e-004	0.0224		94.2669	94.2669	3.6500e-003		94.3580
<b>Total</b>	<b>0.0618</b>	<b>0.0362</b>	<b>0.4686</b>	<b>9.5000e-004</b>	<b>0.0822</b>	<b>6.6000e-004</b>	<b>0.0828</b>	<b>0.0218</b>	<b>6.1000e-004</b>	<b>0.0224</b>		<b>94.2669</b>	<b>94.2669</b>	<b>3.6500e-003</b>		<b>94.3580</b>

**3.13 SPS - Paving - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3343	15.1252	11.2134	0.0213		0.6572	0.6572		0.6046	0.6046		2,141.1655	2,141.1655	0.6666		2,157.8298
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.3343</b>	<b>15.1252</b>	<b>11.2134</b>	<b>0.0213</b>		<b>0.6572</b>	<b>0.6572</b>		<b>0.6046</b>	<b>0.6046</b>		<b>2,141.1655</b>	<b>2,141.1655</b>	<b>0.6666</b>		<b>2,157.8298</b>

Modesto WWMP - Stanislaus County, Summer

**3.13 SPS - Paving - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0618	0.0362	0.4686	9.5000e-004	0.0822	6.6000e-004	0.0828	0.0218	6.1000e-004	0.0224		94.2669	94.2669	3.6500e-003		94.3580
<b>Total</b>	<b>0.0618</b>	<b>0.0362</b>	<b>0.4686</b>	<b>9.5000e-004</b>	<b>0.0822</b>	<b>6.6000e-004</b>	<b>0.0828</b>	<b>0.0218</b>	<b>6.1000e-004</b>	<b>0.0224</b>		<b>94.2669</b>	<b>94.2669</b>	<b>3.6500e-003</b>		<b>94.3580</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5244	10.1378	14.7502	0.0213		0.4585	0.4585		0.4585	0.4585	0.0000	2,141.1655	2,141.1655	0.6666		2,157.8298
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5244</b>	<b>10.1378</b>	<b>14.7502</b>	<b>0.0213</b>		<b>0.4585</b>	<b>0.4585</b>		<b>0.4585</b>	<b>0.4585</b>	<b>0.0000</b>	<b>2,141.1655</b>	<b>2,141.1655</b>	<b>0.6666</b>		<b>2,157.8298</b>

Modesto WWMP - Stanislaus County, Summer

**3.13 SPS - Paving - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0618	0.0362	0.4686	9.5000e-004	0.0822	6.6000e-004	0.0828	0.0218	6.1000e-004	0.0224		94.2669	94.2669	3.6500e-003		94.3580
<b>Total</b>	<b>0.0618</b>	<b>0.0362</b>	<b>0.4686</b>	<b>9.5000e-004</b>	<b>0.0822</b>	<b>6.6000e-004</b>	<b>0.0828</b>	<b>0.0218</b>	<b>6.1000e-004</b>	<b>0.0224</b>		<b>94.2669</b>	<b>94.2669</b>	<b>3.6500e-003</b>		<b>94.3580</b>

**3.14 SPS - Architectural - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	158.5170					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.2031	13.6499	5.9371	0.0195		0.4845	0.4845		0.4457	0.4457		1,958.4786	1,958.4786	0.6097		1,973.7211
<b>Total</b>	<b>159.7201</b>	<b>13.6499</b>	<b>5.9371</b>	<b>0.0195</b>		<b>0.4845</b>	<b>0.4845</b>		<b>0.4457</b>	<b>0.4457</b>		<b>1,958.4786</b>	<b>1,958.4786</b>	<b>0.6097</b>		<b>1,973.7211</b>

Modesto WWMP - Stanislaus County, Summer

**3.14 SPS - Architectural - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0309	0.0181	0.2343	4.7000e-004	0.0411	3.3000e-004	0.0414	0.0109	3.0000e-004	0.0112		47.1335	47.1335	1.8200e-003		47.1790
<b>Total</b>	<b>0.0309</b>	<b>0.0181</b>	<b>0.2343</b>	<b>4.7000e-004</b>	<b>0.0411</b>	<b>3.3000e-004</b>	<b>0.0414</b>	<b>0.0109</b>	<b>3.0000e-004</b>	<b>0.0112</b>		<b>47.1335</b>	<b>47.1335</b>	<b>1.8200e-003</b>		<b>47.1790</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	158.5170					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2080	7.9962	12.0382	0.0195		0.3105	0.3105		0.3250	0.3250	0.0000	1,958.4786	1,958.4786	0.6097		1,973.7211
<b>Total</b>	<b>158.7250</b>	<b>7.9962</b>	<b>12.0382</b>	<b>0.0195</b>		<b>0.3105</b>	<b>0.3105</b>		<b>0.3250</b>	<b>0.3250</b>	<b>0.0000</b>	<b>1,958.4786</b>	<b>1,958.4786</b>	<b>0.6097</b>		<b>1,973.7211</b>

Modesto WWMP - Stanislaus County, Summer

**3.14 SPS - Architectural - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0309	0.0181	0.2343	4.7000e-004	0.0411	3.3000e-004	0.0414	0.0109	3.0000e-004	0.0112		47.1335	47.1335	1.8200e-003		47.1790
<b>Total</b>	<b>0.0309</b>	<b>0.0181</b>	<b>0.2343</b>	<b>4.7000e-004</b>	<b>0.0411</b>	<b>3.3000e-004</b>	<b>0.0414</b>	<b>0.0109</b>	<b>3.0000e-004</b>	<b>0.0112</b>		<b>47.1335</b>	<b>47.1335</b>	<b>1.8200e-003</b>		<b>47.1790</b>

**3.15 RTPS - Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2253	23.7489	14.6426	0.0390		0.9236	0.9236		0.8497	0.8497		3,864.0328	3,864.0328	1.2225		3,894.5963
<b>Total</b>	<b>2.2253</b>	<b>23.7489</b>	<b>14.6426</b>	<b>0.0390</b>		<b>0.9236</b>	<b>0.9236</b>		<b>0.8497</b>	<b>0.8497</b>		<b>3,864.0328</b>	<b>3,864.0328</b>	<b>1.2225</b>		<b>3,894.5963</b>



Modesto WWMP - Stanislaus County, Summer

**3.15 RTPS - Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1117	0.0634	0.8317	1.8400e-003	0.1643	1.2700e-003	0.1656	0.0436	1.1700e-003	0.0448		183.1354	183.1354	6.4500e-003		183.2965
<b>Total</b>	<b>0.1117</b>	<b>0.0634</b>	<b>0.8317</b>	<b>1.8400e-003</b>	<b>0.1643</b>	<b>1.2700e-003</b>	<b>0.1656</b>	<b>0.0436</b>	<b>1.1700e-003</b>	<b>0.0448</b>		<b>183.1354</b>	<b>183.1354</b>	<b>6.4500e-003</b>		<b>183.2965</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4929	17.5160	25.8842	0.0390		0.7337	0.7337		0.7588	0.7588	0.0000	3,864.0328	3,864.0328	1.2225		3,894.5963
<b>Total</b>	<b>0.4929</b>	<b>17.5160</b>	<b>25.8842</b>	<b>0.0390</b>		<b>0.7337</b>	<b>0.7337</b>		<b>0.7588</b>	<b>0.7588</b>	<b>0.0000</b>	<b>3,864.0328</b>	<b>3,864.0328</b>	<b>1.2225</b>		<b>3,894.5963</b>

Modesto WWMP - Stanislaus County, Summer

**3.15 RTPS - Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1117	0.0634	0.8317	1.8400e-003	0.1643	1.2700e-003	0.1656	0.0436	1.1700e-003	0.0448		183.1354	183.1354	6.4500e-003		183.2965
<b>Total</b>	<b>0.1117</b>	<b>0.0634</b>	<b>0.8317</b>	<b>1.8400e-003</b>	<b>0.1643</b>	<b>1.2700e-003</b>	<b>0.1656</b>	<b>0.0436</b>	<b>1.1700e-003</b>	<b>0.0448</b>		<b>183.1354</b>	<b>183.1354</b>	<b>6.4500e-003</b>		<b>183.2965</b>

**3.15 RTPS - Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0642	21.0933	14.0976	0.0390		0.8142	0.8142		0.7490	0.7490		3,778.7719	3,778.7719	1.2221		3,809.3252
<b>Total</b>	<b>2.0642</b>	<b>21.0933</b>	<b>14.0976</b>	<b>0.0390</b>		<b>0.8142</b>	<b>0.8142</b>		<b>0.7490</b>	<b>0.7490</b>		<b>3,778.7719</b>	<b>3,778.7719</b>	<b>1.2221</b>		<b>3,809.3252</b>

Modesto WWMP - Stanislaus County, Summer

**3.15 RTPS - Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1018	0.0559	0.7428	1.7800e-003	0.1643	1.2300e-003	0.1655	0.0436	1.1300e-003	0.0447		177.5499	177.5499	5.6300e-003		177.6905
<b>Total</b>	<b>0.1018</b>	<b>0.0559</b>	<b>0.7428</b>	<b>1.7800e-003</b>	<b>0.1643</b>	<b>1.2300e-003</b>	<b>0.1655</b>	<b>0.0436</b>	<b>1.1300e-003</b>	<b>0.0447</b>		<b>177.5499</b>	<b>177.5499</b>	<b>5.6300e-003</b>		<b>177.6905</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5490	18.5562	26.1082	0.0390		0.7710	0.7710		0.7931	0.7931	0.0000	3,778.7719	3,778.7719	1.2221		3,809.3252
<b>Total</b>	<b>0.5490</b>	<b>18.5562</b>	<b>26.1082</b>	<b>0.0390</b>		<b>0.7710</b>	<b>0.7710</b>		<b>0.7931</b>	<b>0.7931</b>	<b>0.0000</b>	<b>3,778.7719</b>	<b>3,778.7719</b>	<b>1.2221</b>		<b>3,809.3252</b>

Modesto WWMP - Stanislaus County, Summer

**3.15 RTPS - Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1018	0.0559	0.7428	1.7800e-003	0.1643	1.2300e-003	0.1655	0.0436	1.1300e-003	0.0447		177.5499	177.5499	5.6300e-003		177.6905
<b>Total</b>	<b>0.1018</b>	<b>0.0559</b>	<b>0.7428</b>	<b>1.7800e-003</b>	<b>0.1643</b>	<b>1.2300e-003</b>	<b>0.1655</b>	<b>0.0436</b>	<b>1.1300e-003</b>	<b>0.0447</b>		<b>177.5499</b>	<b>177.5499</b>	<b>5.6300e-003</b>		<b>177.6905</b>

**3.16 RTPS - Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0476	10.7656	11.0471	0.0213		0.4631	0.4631		0.4261	0.4261		2,060.6710	2,060.6710	0.6665		2,077.3326
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0476</b>	<b>10.7656</b>	<b>11.0471</b>	<b>0.0213</b>		<b>0.4631</b>	<b>0.4631</b>		<b>0.4261</b>	<b>0.4261</b>		<b>2,060.6710</b>	<b>2,060.6710</b>	<b>0.6665</b>		<b>2,077.3326</b>

Modesto WWMP - Stanislaus County, Summer

**3.16 RTPS - Paving - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0470	0.0249	0.3390	8.6000e-004	0.0822	6.0000e-004	0.0827	0.0218	5.5000e-004	0.0223		85.9665	85.9665	2.5300e-003		86.0297
<b>Total</b>	<b>0.0470</b>	<b>0.0249</b>	<b>0.3390</b>	<b>8.6000e-004</b>	<b>0.0822</b>	<b>6.0000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.5000e-004</b>	<b>0.0223</b>		<b>85.9665</b>	<b>85.9665</b>	<b>2.5300e-003</b>		<b>86.0297</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5244	10.1378	14.7502	0.0213		0.4585	0.4585		0.4585	0.4585	0.0000	2,060.6710	2,060.6710	0.6665		2,077.3326
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5244</b>	<b>10.1378</b>	<b>14.7502</b>	<b>0.0213</b>		<b>0.4585</b>	<b>0.4585</b>		<b>0.4585</b>	<b>0.4585</b>	<b>0.0000</b>	<b>2,060.6710</b>	<b>2,060.6710</b>	<b>0.6665</b>		<b>2,077.3326</b>

Modesto WWMP - Stanislaus County, Summer

**3.16 RTPS - Paving - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0470	0.0249	0.3390	8.6000e-004	0.0822	6.0000e-004	0.0827	0.0218	5.5000e-004	0.0223		85.9665	85.9665	2.5300e-003		86.0297
<b>Total</b>	<b>0.0470</b>	<b>0.0249</b>	<b>0.3390</b>	<b>8.6000e-004</b>	<b>0.0822</b>	<b>6.0000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.5000e-004</b>	<b>0.0223</b>		<b>85.9665</b>	<b>85.9665</b>	<b>2.5300e-003</b>		<b>86.0297</b>

**3.17 RTPS - Architectural Coating - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	158.5170					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.8632	8.1612	4.8034	0.0179		0.2897	0.2897		0.2665	0.2665		1,732.4427	1,732.4427	0.5603		1,746.4503
<b>Total</b>	<b>159.3802</b>	<b>8.1612</b>	<b>4.8034</b>	<b>0.0179</b>		<b>0.2897</b>	<b>0.2897</b>		<b>0.2665</b>	<b>0.2665</b>		<b>1,732.4427</b>	<b>1,732.4427</b>	<b>0.5603</b>		<b>1,746.4503</b>

Modesto WWMP - Stanislaus County, Summer

**3.17 RTPS - Architectural Coating - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0235	0.0125	0.1695	4.3000e-004	0.0411	3.0000e-004	0.0414	0.0109	2.7000e-004	0.0112		42.9832	42.9832	1.2600e-003		43.0148
<b>Total</b>	<b>0.0235</b>	<b>0.0125</b>	<b>0.1695</b>	<b>4.3000e-004</b>	<b>0.0411</b>	<b>3.0000e-004</b>	<b>0.0414</b>	<b>0.0109</b>	<b>2.7000e-004</b>	<b>0.0112</b>		<b>42.9832</b>	<b>42.9832</b>	<b>1.2600e-003</b>		<b>43.0148</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	158.5170					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2698	9.0857	11.5587	0.0179		0.3486	0.3486		0.3579	0.3579	0.0000	1,732.4427	1,732.4427	0.5603		1,746.4503
<b>Total</b>	<b>158.7868</b>	<b>9.0857</b>	<b>11.5587</b>	<b>0.0179</b>		<b>0.3486</b>	<b>0.3486</b>		<b>0.3579</b>	<b>0.3579</b>	<b>0.0000</b>	<b>1,732.4427</b>	<b>1,732.4427</b>	<b>0.5603</b>		<b>1,746.4503</b>

Modesto WWMP - Stanislaus County, Summer

**3.17 RTPS - Architectural Coating - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0235	0.0125	0.1695	4.3000e-004	0.0411	3.0000e-004	0.0414	0.0109	2.7000e-004	0.0112		42.9832	42.9832	1.2600e-003		43.0148
<b>Total</b>	<b>0.0235</b>	<b>0.0125</b>	<b>0.1695</b>	<b>4.3000e-004</b>	<b>0.0411</b>	<b>3.0000e-004</b>	<b>0.0414</b>	<b>0.0109</b>	<b>2.7000e-004</b>	<b>0.0112</b>		<b>42.9832</b>	<b>42.9832</b>	<b>1.2600e-003</b>		<b>43.0148</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**



Modesto WWMP - Stanislaus County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.1700e-003	0.0235	0.0321	1.2000e-004	7.1500e-003	1.4000e-004	7.2800e-003	1.9200e-003	1.3000e-004	2.0500e-003		12.1203	12.1203	7.3000e-004		12.1385
Unmitigated	3.1700e-003	0.0235	0.0321	1.2000e-004	7.1500e-003	1.4000e-004	7.2800e-003	1.9200e-003	1.3000e-004	2.0500e-003		12.1203	12.1203	7.3000e-004		12.1385

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	1.14	1.14	1.14	3,328	3,328
Total	1.14	1.14	1.14	3,328	3,328

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.501303	0.035285	0.172289	0.136094	0.027047	0.006047	0.027345	0.084787	0.001820	0.001183	0.004865	0.000869	0.001067

5.0 Energy Detail

Historical Energy Use: N

Modesto WWMP - Stanislaus County, Summer

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	

Modesto WWMP - Stanislaus County, Summer

**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.4375	5.0000e-005	5.8600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0125	0.0125	3.0000e-005		0.0133
Unmitigated	1.4375	5.0000e-005	5.8600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0125	0.0125	3.0000e-005		0.0133

Modesto WWMP - Stanislaus County, Summer

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2172					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.5000e-004	5.0000e-005	5.8600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0125	0.0125	3.0000e-005		0.0133
<b>Total</b>	<b>1.4375</b>	<b>5.0000e-005</b>	<b>5.8600e-003</b>	<b>0.0000</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>0.0125</b>	<b>0.0125</b>	<b>3.0000e-005</b>		<b>0.0133</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2172					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.5000e-004	5.0000e-005	5.8600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0125	0.0125	3.0000e-005		0.0133
<b>Total</b>	<b>1.4375</b>	<b>5.0000e-005</b>	<b>5.8600e-003</b>	<b>0.0000</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>0.0125</b>	<b>0.0125</b>	<b>3.0000e-005</b>		<b>0.0133</b>

**7.0 Water Detail**

Modesto WWMP - Stanislaus County, Summer

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	4	0	200	208	0.73	Diesel
Emergency Generator	2	0	200	38	0.73	Diesel

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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Modesto WWMP - Stanislaus County, Summer

**10.1 Stationary Sources**

**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Equipment Type	lb/day										lb/day						
Emergency Generator - Diesel (175 - 300 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Emergency Generator - Diesel (25 - 50 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>			<b>0.0000</b>

**11.0 Vegetation**

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Modesto WWMP - Stanislaus County, Winter

**Modesto WWMP**  
**Stanislaus County, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	57.00	1000sqft	1.31	57,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	46
<b>Climate Zone</b>	3			<b>Operational Year</b>	2020
<b>Utility Company</b>	Modesto Irrigation District				
<b>CO2 Intensity (lb/MW hr)</b>	833.46	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - From Total Pump Station Area - Request #9

Construction Phase - Based on information in Request #9 and January 2018 feedback from Carollo

Off-road Equipment - Based on Request #9. Off-highway trucks used for trucks for pipe delivery.

Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for pickup trucks.

Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for pickup trucks.

Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for pickup trucks.

Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for pickup trucks.

Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for pickup trucks.

Off-road Equipment - Based on Request #9. Off-highway trucks used for concrete delivery trucks.

Modesto WWMP - Stanislaus County, Winter

- Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for concrete delivery trucks.
- Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for pickup trucks.
- Off-road Equipment - Based on Request #9 and January communication with Carollo. Off-highway trucks used for pickup trucks.
- Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for pickup trucks.
- Off-road Equipment - Based on Request #9 and January feedback from Carollo. Off-highway trucks used for concrete trucks and pickup trucks.
- Off-road Equipment - Based on Request #9 and January communication with Carollo. Off-highway trucks used for pickup trucks.
- Off-road Equipment - Based on Request #9 and January feedback from Carollo.
- Off-road Equipment - Based on Request #9 and January communication with Carollo. Off-highway trucks used for pickup trucks.
- Off-road Equipment - Based on Request #9 and January communication with Carollo. Off-highway trucks used for pickup trucks.
- Trips and VMT - Based on Request 9
- Grading - Based on information from Request 9, but divided evenly between available phases. 5 acres / 4 phases
- Vehicle Trips - 1 trip per day
- Vehicle Emission Factors -
- Vehicle Emission Factors -
- Vehicle Emission Factors -
- Energy Use - no natural gas
- Water And Wastewater - no indoor water use at pump station
- Solid Waste - minimal solid waste generation
- Construction Off-road Equipment Mitigation - Added Tier 3 Mitigation
- Operational Off-Road Equipment - remove pump
- Stationary Sources - Emergency Generators and Fire Pumps - Based on PDR 2016
- Architectural Coating - No coating, just fencing.
- Area Coating - No coating, just fencing.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Parking	150.00	0.00
tblArchitecturalCoating	EF_Parking	150.00	0.00



Modesto WWMP - Stanislaus County, Winter

tblAreaCoating	Area_EF_Parking	150	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	22.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	37.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	NT24NG	3.84	0.00
tblEnergyUse	T24NG	17.11	0.00
tblGrading	AcresOfGrading	25.00	1.25
tblGrading	MaterialExported	0.00	11,500.00
tblGrading	MaterialExported	0.00	11,500.00





Modesto WWMP - Stanislaus County, Winter

tblOffRoadEquipment	PhaseName		RTPS - Construction
tblOffRoadEquipment	PhaseName		Alignment A
tblOffRoadEquipment	PhaseName		RTPS - Grading
tblOffRoadEquipment	PhaseName		SPS - Grading
tblOffRoadEquipment	PhaseName		Sutter Trunk - Lining
tblOffRoadEquipment	PhaseName		Alignment A
tblOffRoadEquipment	PhaseName		RTPS - Grading
tblOffRoadEquipment	PhaseName		RTPS - Site Prep
tblOffRoadEquipment	PhaseName		SPS - Grading
tblOffRoadEquipment	PhaseName		SPS - Construction
tblOffRoadEquipment	PhaseName		SPS - Paving
tblOffRoadEquipment	PhaseName		RTPS - Construction
tblOffRoadEquipment	PhaseName		RTPS - Paving
tblOffRoadEquipment	PhaseName		Sutter Trunk - Lining
tblOffRoadEquipment	PhaseName		Alignment A
tblOffRoadEquipment	PhaseName		Alignment B
tblOffRoadEquipment	PhaseName		Alignment C
tblOffRoadEquipment	PhaseName		Alignment D
tblOffRoadEquipment	PhaseName		Gravity System
tblOffRoadEquipment	PhaseName		RTPS - Grading
tblOffRoadEquipment	PhaseName		SPS - Site Prep
tblOffRoadEquipment	PhaseName		RTPS - Site Prep
tblOffRoadEquipment	PhaseName		SPS - Grading
tblOffRoadEquipment	PhaseName		SPS - Construction
tblOffRoadEquipment	PhaseName		SPS - Construction
tblOffRoadEquipment	PhaseName		SPS - Paving
tblOffRoadEquipment	PhaseName		SPS - Architectural

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tblOffRoadEquipment	PhaseName	RTPS - Construction
tblOffRoadEquipment	PhaseName	RTPS - Construction
tblOffRoadEquipment	PhaseName	RTPS - Paving
tblOffRoadEquipment	PhaseName	RTPS - Architectural Coating
tblOffRoadEquipment	PhaseName	Sutter Trunk - Lining
tblOffRoadEquipment	PhaseName	Alignment A
tblOffRoadEquipment	PhaseName	Alignment A
tblOffRoadEquipment	PhaseName	Alignment B
tblOffRoadEquipment	PhaseName	Alignment C
tblOffRoadEquipment	PhaseName	Alignment D
tblOffRoadEquipment	PhaseName	Gravity System
tblOffRoadEquipment	PhaseName	RTPS - Grading
tblOffRoadEquipment	PhaseName	RTPS - Grading
tblOffRoadEquipment	PhaseName	SPS - Site Prep
tblOffRoadEquipment	PhaseName	Alignment B
tblOffRoadEquipment	PhaseName	Alignment C
tblOffRoadEquipment	PhaseName	Alignment D
tblOffRoadEquipment	PhaseName	Gravity System
tblOffRoadEquipment	PhaseName	RTPS - Site Prep
tblOffRoadEquipment	PhaseName	SPS - Grading
tblOffRoadEquipment	PhaseName	SPS - Paving
tblOffRoadEquipment	PhaseName	SPS - Architectural
tblOffRoadEquipment	PhaseName	RTPS - Paving
tblOffRoadEquipment	PhaseName	RTPS - Architectural Coating
tblOffRoadEquipment	PhaseName	Sutter Trunk - Lining
tblOffRoadEquipment	PhaseName	Alignment A
tblOffRoadEquipment	PhaseName	SPS - Site Prep

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tblOffRoadEquipment	PhaseName		RTPS - Site Prep
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblSolidWaste	SolidWasteGenerationRate	70.68	1.00
tblTripsAndVMT	HaulingTripNumber	0.00	2,063.00
tblTripsAndVMT	HaulingTripNumber	0.00	2,063.00
tblTripsAndVMT	HaulingTripNumber	0.00	2,063.00
tblTripsAndVMT	VendorTripNumber	9.00	0.00
tblTripsAndVMT	VendorTripNumber	9.00	0.00
tblTripsAndVMT	WorkerTripNumber	24.00	10.00
tblTripsAndVMT	WorkerTripNumber	24.00	20.00
tblTripsAndVMT	WorkerTripNumber	15.00	5.00
tblTripsAndVMT	WorkerTripNumber	13.00	30.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	13.00	20.00
tblTripsAndVMT	WorkerTripNumber	13.00	20.00
tblTripsAndVMT	WorkerTripNumber	13.00	20.00
tblTripsAndVMT	WorkerTripNumber	13.00	20.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblVehicleTrips	ST_TR	1.32	0.02
tblVehicleTrips	SU_TR	0.68	0.02
tblVehicleTrips	WD_TR	6.97	0.02
tblWater	IndoorWaterUseRate	13,181,250.00	0.00

Modesto WWMP - Stanislaus County, Winter

**2.0 Emissions Summary**

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	166.6726	174.2605	93.7072	0.3404	4.9002	5.4414	9.7103	1.2886	5.0131	5.7260	0.0000	34,917.8035	34,917.8035	6.5887	0.0000	35,078.3966
2019	8.6160	91.4446	61.5215	0.1662	2.0172	3.5177	5.5349	0.5149	3.2378	3.7527	0.0000	16,518.4556	16,518.4556	4.6866	0.0000	16,635.6193
2020	2.1599	21.1600	14.7344	0.0406	0.1643	0.8154	0.9797	0.0436	0.7502	0.7938	0.0000	3,935.4827	3,935.4827	1.2271	0.0000	3,966.1601
2021	159.4022	10.7953	11.3366	0.0220	0.0822	0.4637	0.5459	0.0218	0.4266	0.4484	0.0000	2,136.5517	2,136.5517	0.6687	0.0000	2,153.2689
<b>Maximum</b>	<b>166.6726</b>	<b>174.2605</b>	<b>93.7072</b>	<b>0.3404</b>	<b>4.9002</b>	<b>5.4414</b>	<b>9.7103</b>	<b>1.2886</b>	<b>5.0131</b>	<b>5.7260</b>	<b>0.0000</b>	<b>34,917.8035</b>	<b>34,917.8035</b>	<b>6.5887</b>	<b>0.0000</b>	<b>35,078.3966</b>





Modesto WWMP - Stanislaus County, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.4375	5.0000e-005	5.8600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0125	0.0125	3.0000e-005		0.0133
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	2.5800e-003	0.0242	0.0299	1.1000e-004	7.1500e-003	1.4000e-004	7.2800e-003	1.9200e-003	1.3000e-004	2.0500e-003		11.1588	11.1588	7.7000e-004		11.1780
Stationary	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.4401</b>	<b>0.0243</b>	<b>0.0357</b>	<b>1.1000e-004</b>	<b>7.1500e-003</b>	<b>1.6000e-004</b>	<b>7.3000e-003</b>	<b>1.9200e-003</b>	<b>1.5000e-004</b>	<b>2.0700e-003</b>		<b>11.1713</b>	<b>11.1713</b>	<b>8.0000e-004</b>	<b>0.0000</b>	<b>11.1913</b>

Modesto WWMP - Stanislaus County, Winter

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.4375	5.0000e-005	5.8600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0125	0.0125	3.0000e-005		0.0133
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	2.5800e-003	0.0242	0.0299	1.1000e-004	7.1500e-003	1.4000e-004	7.2800e-003	1.9200e-003	1.3000e-004	2.0500e-003		11.1588	11.1588	7.7000e-004		11.1780
Stationary	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.4401</b>	<b>0.0243</b>	<b>0.0357</b>	<b>1.1000e-004</b>	<b>7.1500e-003</b>	<b>1.6000e-004</b>	<b>7.3000e-003</b>	<b>1.9200e-003</b>	<b>1.5000e-004</b>	<b>2.0700e-003</b>		<b>11.1713</b>	<b>11.1713</b>	<b>8.0000e-004</b>	<b>0.0000</b>	<b>11.1913</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

Modesto WWMP - Stanislaus County, Winter

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	RTPS - Site Prep	Site Preparation	7/1/2018	8/3/2018	5	25	
2	Sutter Trunk - Lining	Trenching	7/1/2018	7/16/2018	5	11	
3	Alignment A	Trenching	7/1/2018	7/2/2019	5	262	
4	Alignment B	Trenching	7/1/2018	8/2/2018	5	24	
5	Alignment C	Trenching	7/1/2018	11/1/2018	5	89	
6	Alignment D	Trenching	7/1/2018	11/30/2018	5	110	
7	Gravity System	Trenching	7/1/2018	5/3/2019	5	220	
8	RTPS - Grading	Grading	8/3/2018	1/31/2019	5	130	
9	SPS - Site Prep	Site Preparation	9/1/2018	9/17/2018	5	11	
10	SPS - Grading	Grading	9/18/2018	10/19/2018	5	24	
11	SPS - Construction	Building Construction	10/20/2018	11/19/2018	5	21	
12	SPS - Paving	Paving	11/20/2018	12/21/2018	5	24	
13	SPS - Architectural	Architectural Coating	12/22/2018	12/28/2018	5	5	
14	RTPS - Construction	Building Construction	1/31/2019	11/2/2020	5	458	
15	RTPS - Paving	Paving	11/3/2021	11/25/2021	5	17	
16	RTPS - Architectural Coating	Architectural Coating	11/26/2021	12/2/2021	5	5	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 85,500; Non-Residential Outdoor: 28,500; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Modesto WWMP - Stanislaus County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
RTPS - Site Prep	Excavators	1	8.00	158	0.38
RTPS - Site Prep	Off-Highway Trucks	0	8.00	402	0.38
RTPS - Site Prep	Rubber Tired Loaders	1	8.00	203	0.36
RTPS - Site Prep	Scrapers	1	8.00	367	0.48
Sutter Trunk - Lining	Cranes	1	6.00	231	0.29
Sutter Trunk - Lining	Excavators	2	8.00	158	0.38
Sutter Trunk - Lining	Off-Highway Trucks	2	4.00	402	0.38
Sutter Trunk - Lining	Rubber Tired Loaders	1	8.00	203	0.36
Alignment A	Bore/Drill Rigs	1	8.00	221	0.50
Alignment A	Cranes	1	6.00	231	0.29
Alignment A	Excavators	1	8.00	158	0.38
Alignment A	Off-Highway Trucks	1	8.00	402	0.38
Alignment A	Off-Highway Trucks	0	8.00	402	0.38
Alignment A	Rubber Tired Loaders	1	8.00	203	0.36
Alignment B	Excavators	2	8.00	158	0.38
Alignment B	Off-Highway Trucks	2	4.00	402	0.38
Alignment B	Plate Compactors	1	8.00	8	0.43
Alignment C	Excavators	2	8.00	158	0.38
Alignment C	Off-Highway Trucks	2	4.00	402	0.38
Alignment C	Plate Compactors	1	8.00	8	0.43
Alignment D	Excavators	2	8.00	158	0.38
Alignment D	Off-Highway Trucks	2	4.00	402	0.38
Alignment D	Plate Compactors	1	8.00	8	0.43
Gravity System	Excavators	2	8.00	158	0.38
Gravity System	Off-Highway Trucks	2	4.00	402	0.38
Gravity System	Plate Compactors	1	8.00	8	0.43

Modesto WWMP - Stanislaus County, Winter

RTPS - Grading	Bore/Drill Rigs	1	8.00	221	0.50
RTPS - Grading	Cranes	1	8.00	231	0.29
RTPS - Grading	Excavators	2	8.00	158	0.38
RTPS - Grading	Off-Highway Trucks	1	8.00	402	0.38
RTPS - Grading	Off-Highway Trucks	0	8.00	402	0.38
RTPS - Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
SPS - Site Prep	Excavators	1	8.00	158	0.38
SPS - Site Prep	Off-Highway Trucks	0	8.00	402	0.38
SPS - Site Prep	Rubber Tired Loaders	1	8.00	203	0.36
SPS - Grading	Cranes	1	6.00	231	0.29
SPS - Grading	Excavators	1	8.00	158	0.38
SPS - Grading	Off-Highway Trucks	0	8.00	402	0.38
SPS - Grading	Rubber Tired Loaders	1	8.00	203	0.36
SPS - Construction	Excavators	1	8.00	158	0.38
SPS - Construction	Off-Highway Trucks	1	8.00	402	0.38
SPS - Construction	Off-Highway Trucks	1	4.00	402	0.38
SPS - Paving	Excavators	2	8.00	158	0.38
SPS - Paving	Off-Highway Trucks	0	8.00	402	0.38
SPS - Paving	Pavers	1	8.00	130	0.42
SPS - Paving	Rubber Tired Loaders	1	8.00	203	0.36
SPS - Architectural	Off-Highway Trucks	2	4.00	402	0.38
SPS - Architectural	Rubber Tired Loaders	1	8.00	203	0.36
RTPS - Construction	Aerial Lifts	1	8.00	63	0.31
RTPS - Construction	Cranes	1	8.00	231	0.29
RTPS - Construction	Excavators	1	8.00	158	0.38
RTPS - Construction	Off-Highway Trucks	0	8.00	402	0.38
RTPS - Construction	Off-Highway Trucks	2	8.00	402	0.38

Modesto WWMP - Stanislaus County, Winter

RTPS - Paving	Excavators	2	8.00	158	0.38
RTPS - Paving	Off-Highway Trucks	0	8.00	402	0.38
RTPS - Paving	Pavers	1	8.00	130	0.42
RTPS - Paving	Rubber Tired Loaders	1	8.00	203	0.36
RTPS - Architectural Coating	Off-Highway Trucks	2	4.00	402	0.38
RTPS - Architectural Coating	Rubber Tired Loaders	1	6.00	203	0.36

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
RTPS - Site Prep	4	10.00	0.00	2,063.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Sutter Trunk - Lining	6	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Alignment A	5	30.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Alignment B	5	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Alignment C	5	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Alignment D	5	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Gravity System	5	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
RTPS - Grading	7	20.00	0.00	2,063.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
SPS - Site Prep	3	10.00	0.00	2,063.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
SPS - Grading	4	10.00	0.00	2,063.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
SPS - Construction	3	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
SPS - Paving	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
SPS - Architectural	3	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
RTPS - Construction	5	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
RTPS - Paving	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
RTPS - Architectural Coating	3	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Modesto WWMP - Stanislaus County, Winter

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

**3.2 RTPS - Site Prep - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1277	0.0000	0.1277	0.0170	0.0000	0.0170			0.0000			0.0000
Off-Road	1.8659	22.6124	13.7978	0.0266		0.8900	0.8900		0.8188	0.8188		2,673.2464	2,673.2464	0.8322		2,694.0518
<b>Total</b>	<b>1.8659</b>	<b>22.6124</b>	<b>13.7978</b>	<b>0.0266</b>	<b>0.1277</b>	<b>0.8900</b>	<b>1.0177</b>	<b>0.0170</b>	<b>0.8188</b>	<b>0.8359</b>		<b>2,673.2464</b>	<b>2,673.2464</b>	<b>0.8322</b>		<b>2,694.0518</b>

Modesto WWMP - Stanislaus County, Winter

**3.2 RTPS - Site Prep - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7580	26.0305	3.8136	0.0664	1.4420	0.1074	1.5494	0.3952	0.1027	0.4979		6,970.9619	6,970.9619	0.4853		6,983.0940
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0432	0.4058	8.4000e-004	0.0822	6.6000e-004	0.0828	0.0218	6.1000e-004	0.0224		83.2283	83.2283	3.2500e-003		83.3095
<b>Total</b>	<b>0.8163</b>	<b>26.0737</b>	<b>4.2194</b>	<b>0.0672</b>	<b>1.5242</b>	<b>0.1080</b>	<b>1.6322</b>	<b>0.4170</b>	<b>0.1033</b>	<b>0.5203</b>		<b>7,054.1901</b>	<b>7,054.1901</b>	<b>0.4885</b>		<b>7,066.4035</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1277	0.0000	0.1277	0.0170	0.0000	0.0170			0.0000			0.0000
Off-Road	0.6546	12.6551	15.3472	0.0266		0.5054	0.5054		0.5054	0.5054	0.0000	2,673.2464	2,673.2464	0.8322		2,694.0518
<b>Total</b>	<b>0.6546</b>	<b>12.6551</b>	<b>15.3472</b>	<b>0.0266</b>	<b>0.1277</b>	<b>0.5054</b>	<b>0.6331</b>	<b>0.0170</b>	<b>0.5054</b>	<b>0.5225</b>	<b>0.0000</b>	<b>2,673.2464</b>	<b>2,673.2464</b>	<b>0.8322</b>		<b>2,694.0518</b>



Modesto WWMP - Stanislaus County, Winter

**3.2 RTPS - Site Prep - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7580	26.0305	3.8136	0.0664	1.4420	0.1074	1.5494	0.3952	0.1027	0.4979		6,970.9619	6,970.9619	0.4853		6,983.0940
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0432	0.4058	8.4000e-004	0.0822	6.6000e-004	0.0828	0.0218	6.1000e-004	0.0224		83.2283	83.2283	3.2500e-003		83.3095
<b>Total</b>	<b>0.8163</b>	<b>26.0737</b>	<b>4.2194</b>	<b>0.0672</b>	<b>1.5242</b>	<b>0.1080</b>	<b>1.6322</b>	<b>0.4170</b>	<b>0.1033</b>	<b>0.5203</b>		<b>7,054.1901</b>	<b>7,054.1901</b>	<b>0.4885</b>		<b>7,066.4035</b>

**3.3 Sutter Trunk - Lining - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2095	24.9573	14.3798	0.0341		1.0062	1.0062		0.9257	0.9257		3,433.0971	3,433.0971	1.0688		3,459.8164
<b>Total</b>	<b>2.2095</b>	<b>24.9573</b>	<b>14.3798</b>	<b>0.0341</b>		<b>1.0062</b>	<b>1.0062</b>		<b>0.9257</b>	<b>0.9257</b>		<b>3,433.0971</b>	<b>3,433.0971</b>	<b>1.0688</b>		<b>3,459.8164</b>

Modesto WWMP - Stanislaus County, Winter

**3.3 Sutter Trunk - Lining - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0292	0.0216	0.2029	4.2000e-004	0.0411	3.3000e-004	0.0414	0.0109	3.0000e-004	0.0112		41.6141	41.6141	1.6200e-003		41.6547
<b>Total</b>	<b>0.0292</b>	<b>0.0216</b>	<b>0.2029</b>	<b>4.2000e-004</b>	<b>0.0411</b>	<b>3.3000e-004</b>	<b>0.0414</b>	<b>0.0109</b>	<b>3.0000e-004</b>	<b>0.0112</b>		<b>41.6141</b>	<b>41.6141</b>	<b>1.6200e-003</b>		<b>41.6547</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5684	14.9655	22.1781	0.0341		0.6256	0.6256		0.6402	0.6402	0.0000	3,433.0971	3,433.0971	1.0688		3,459.8164
<b>Total</b>	<b>0.5684</b>	<b>14.9655</b>	<b>22.1781</b>	<b>0.0341</b>		<b>0.6256</b>	<b>0.6256</b>		<b>0.6402</b>	<b>0.6402</b>	<b>0.0000</b>	<b>3,433.0971</b>	<b>3,433.0971</b>	<b>1.0688</b>		<b>3,459.8164</b>

Modesto WWMP - Stanislaus County, Winter

**3.3 Sutter Trunk - Lining - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0292	0.0216	0.2029	4.2000e-004	0.0411	3.3000e-004	0.0414	0.0109	3.0000e-004	0.0112		41.6141	41.6141	1.6200e-003		41.6547
<b>Total</b>	<b>0.0292</b>	<b>0.0216</b>	<b>0.2029</b>	<b>4.2000e-004</b>	<b>0.0411</b>	<b>3.3000e-004</b>	<b>0.0414</b>	<b>0.0109</b>	<b>3.0000e-004</b>	<b>0.0112</b>		<b>41.6141</b>	<b>41.6141</b>	<b>1.6200e-003</b>		<b>41.6547</b>

**3.4 Alignment A - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2215	26.0575	13.1958	0.0384		0.9746	0.9746		0.8966	0.8966		3,857.8655	3,857.8655	1.2010		3,887.8906
<b>Total</b>	<b>2.2215</b>	<b>26.0575</b>	<b>13.1958</b>	<b>0.0384</b>		<b>0.9746</b>	<b>0.9746</b>		<b>0.8966</b>	<b>0.8966</b>		<b>3,857.8655</b>	<b>3,857.8655</b>	<b>1.2010</b>		<b>3,887.8906</b>

Modesto WWMP - Stanislaus County, Winter

**3.4 Alignment A - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1751	0.1297	1.2173	2.5100e-003	0.2464	1.9700e-003	0.2484	0.0654	1.8200e-003	0.0672		249.6848	249.6848	9.7500e-003		249.9285
<b>Total</b>	<b>0.1751</b>	<b>0.1297</b>	<b>1.2173</b>	<b>2.5100e-003</b>	<b>0.2464</b>	<b>1.9700e-003</b>	<b>0.2484</b>	<b>0.0654</b>	<b>1.8200e-003</b>	<b>0.0672</b>		<b>249.6848</b>	<b>249.6848</b>	<b>9.7500e-003</b>		<b>249.9285</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6752	17.0302	23.3272	0.0384		0.6785	0.6785		0.6931	0.6931	0.0000	3,857.8655	3,857.8655	1.2010		3,887.8906
<b>Total</b>	<b>0.6752</b>	<b>17.0302</b>	<b>23.3272</b>	<b>0.0384</b>		<b>0.6785</b>	<b>0.6785</b>		<b>0.6931</b>	<b>0.6931</b>	<b>0.0000</b>	<b>3,857.8655</b>	<b>3,857.8655</b>	<b>1.2010</b>		<b>3,887.8906</b>

Modesto WWMP - Stanislaus County, Winter

**3.4 Alignment A - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1751	0.1297	1.2173	2.5100e-003	0.2464	1.9700e-003	0.2484	0.0654	1.8200e-003	0.0672		249.6848	249.6848	9.7500e-003		249.9285
<b>Total</b>	<b>0.1751</b>	<b>0.1297</b>	<b>1.2173</b>	<b>2.5100e-003</b>	<b>0.2464</b>	<b>1.9700e-003</b>	<b>0.2484</b>	<b>0.0654</b>	<b>1.8200e-003</b>	<b>0.0672</b>		<b>249.6848</b>	<b>249.6848</b>	<b>9.7500e-003</b>		<b>249.9285</b>

**3.4 Alignment A - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0268	22.8948	12.7255	0.0383		0.8483	0.8483		0.7804	0.7804		3,793.3305	3,793.3305	1.2002		3,823.3348
<b>Total</b>	<b>2.0268</b>	<b>22.8948</b>	<b>12.7255</b>	<b>0.0383</b>		<b>0.8483</b>	<b>0.8483</b>		<b>0.7804</b>	<b>0.7804</b>		<b>3,793.3305</b>	<b>3,793.3305</b>	<b>1.2002</b>		<b>3,823.3348</b>

Modesto WWMP - Stanislaus County, Winter

**3.4 Alignment A - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.1577	0.1136	1.0744	2.4400e-003	0.2464	1.9000e-003	0.2484	0.0654	1.7500e-003	0.0671		242.4865	242.4865	8.5700e-003			242.7008
<b>Total</b>	<b>0.1577</b>	<b>0.1136</b>	<b>1.0744</b>	<b>2.4400e-003</b>	<b>0.2464</b>	<b>1.9000e-003</b>	<b>0.2484</b>	<b>0.0654</b>	<b>1.7500e-003</b>	<b>0.0671</b>		<b>242.4865</b>	<b>242.4865</b>	<b>8.5700e-003</b>			<b>242.7008</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	0.7133	17.7114	23.4501	0.0383		0.7040	0.7040		0.7165	0.7165	0.0000	3,793.3305	3,793.3305	1.2002			3,823.3348
<b>Total</b>	<b>0.7133</b>	<b>17.7114</b>	<b>23.4501</b>	<b>0.0383</b>		<b>0.7040</b>	<b>0.7040</b>		<b>0.7165</b>	<b>0.7165</b>	<b>0.0000</b>	<b>3,793.3305</b>	<b>3,793.3305</b>	<b>1.2002</b>			<b>3,823.3348</b>

Modesto WWMP - Stanislaus County, Winter

**3.4 Alignment A - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.1577	0.1136	1.0744	2.4400e-003	0.2464	1.9000e-003	0.2484	0.0654	1.7500e-003	0.0671		242.4865	242.4865	8.5700e-003			242.7008
<b>Total</b>	<b>0.1577</b>	<b>0.1136</b>	<b>1.0744</b>	<b>2.4400e-003</b>	<b>0.2464</b>	<b>1.9000e-003</b>	<b>0.2484</b>	<b>0.0654</b>	<b>1.7500e-003</b>	<b>0.0671</b>		<b>242.4865</b>	<b>242.4865</b>	<b>8.5700e-003</b>			<b>242.7008</b>

**3.5 Alignment B - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.3917	14.7681	10.9635	0.0240		0.6139	0.6139		0.5656	0.5656		2,403.2657	2,403.2657	0.7410			2,421.7910
<b>Total</b>	<b>1.3917</b>	<b>14.7681</b>	<b>10.9635</b>	<b>0.0240</b>		<b>0.6139</b>	<b>0.6139</b>		<b>0.5656</b>	<b>0.5656</b>		<b>2,403.2657</b>	<b>2,403.2657</b>	<b>0.7410</b>			<b>2,421.7910</b>

Modesto WWMP - Stanislaus County, Winter

**3.5 Alignment B - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0432	0.4058	8.4000e-004	0.0822	6.6000e-004	0.0828	0.0218	6.1000e-004	0.0224		83.2283	83.2283	3.2500e-003		83.3095
<b>Total</b>	<b>0.0584</b>	<b>0.0432</b>	<b>0.4058</b>	<b>8.4000e-004</b>	<b>0.0822</b>	<b>6.6000e-004</b>	<b>0.0828</b>	<b>0.0218</b>	<b>6.1000e-004</b>	<b>0.0224</b>		<b>83.2283</b>	<b>83.2283</b>	<b>3.2500e-003</b>		<b>83.3095</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3074	9.9194	16.5230	0.0240		0.4342	0.4342		0.4488	0.4488	0.0000	2,403.2657	2,403.2657	0.7410		2,421.7910
<b>Total</b>	<b>0.3074</b>	<b>9.9194</b>	<b>16.5230</b>	<b>0.0240</b>		<b>0.4342</b>	<b>0.4342</b>		<b>0.4488</b>	<b>0.4488</b>	<b>0.0000</b>	<b>2,403.2657</b>	<b>2,403.2657</b>	<b>0.7410</b>		<b>2,421.7910</b>



Modesto WWMP - Stanislaus County, Winter

**3.5 Alignment B - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0432	0.4058	8.4000e-004	0.0822	6.6000e-004	0.0828	0.0218	6.1000e-004	0.0224		83.2283	83.2283	3.2500e-003		83.3095
<b>Total</b>	<b>0.0584</b>	<b>0.0432</b>	<b>0.4058</b>	<b>8.4000e-004</b>	<b>0.0822</b>	<b>6.6000e-004</b>	<b>0.0828</b>	<b>0.0218</b>	<b>6.1000e-004</b>	<b>0.0224</b>		<b>83.2283</b>	<b>83.2283</b>	<b>3.2500e-003</b>		<b>83.3095</b>

**3.6 Alignment C - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3917	14.7681	10.9635	0.0240		0.6139	0.6139		0.5656	0.5656		2,403.2657	2,403.2657	0.7410		2,421.7910
<b>Total</b>	<b>1.3917</b>	<b>14.7681</b>	<b>10.9635</b>	<b>0.0240</b>		<b>0.6139</b>	<b>0.6139</b>		<b>0.5656</b>	<b>0.5656</b>		<b>2,403.2657</b>	<b>2,403.2657</b>	<b>0.7410</b>		<b>2,421.7910</b>

Modesto WWMP - Stanislaus County, Winter

**3.6 Alignment C - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1167	0.0865	0.8115	1.6700e-003	0.1643	1.3100e-003	0.1656	0.0436	1.2100e-003	0.0448		166.4566	166.4566	6.5000e-003		166.6190
<b>Total</b>	<b>0.1167</b>	<b>0.0865</b>	<b>0.8115</b>	<b>1.6700e-003</b>	<b>0.1643</b>	<b>1.3100e-003</b>	<b>0.1656</b>	<b>0.0436</b>	<b>1.2100e-003</b>	<b>0.0448</b>		<b>166.4566</b>	<b>166.4566</b>	<b>6.5000e-003</b>		<b>166.6190</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3074	9.9194	16.5230	0.0240		0.4342	0.4342		0.4488	0.4488	0.0000	2,403.2657	2,403.2657	0.7410		2,421.7910
<b>Total</b>	<b>0.3074</b>	<b>9.9194</b>	<b>16.5230</b>	<b>0.0240</b>		<b>0.4342</b>	<b>0.4342</b>		<b>0.4488</b>	<b>0.4488</b>	<b>0.0000</b>	<b>2,403.2657</b>	<b>2,403.2657</b>	<b>0.7410</b>		<b>2,421.7910</b>

Modesto WWMP - Stanislaus County, Winter

**3.6 Alignment C - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1167	0.0865	0.8115	1.6700e-003	0.1643	1.3100e-003	0.1656	0.0436	1.2100e-003	0.0448		166.4566	166.4566	6.5000e-003		166.6190
<b>Total</b>	<b>0.1167</b>	<b>0.0865</b>	<b>0.8115</b>	<b>1.6700e-003</b>	<b>0.1643</b>	<b>1.3100e-003</b>	<b>0.1656</b>	<b>0.0436</b>	<b>1.2100e-003</b>	<b>0.0448</b>		<b>166.4566</b>	<b>166.4566</b>	<b>6.5000e-003</b>		<b>166.6190</b>

**3.7 Alignment D - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3917	14.7681	10.9635	0.0240		0.6139	0.6139		0.5656	0.5656		2,403.2657	2,403.2657	0.7410		2,421.7910
<b>Total</b>	<b>1.3917</b>	<b>14.7681</b>	<b>10.9635</b>	<b>0.0240</b>		<b>0.6139</b>	<b>0.6139</b>		<b>0.5656</b>	<b>0.5656</b>		<b>2,403.2657</b>	<b>2,403.2657</b>	<b>0.7410</b>		<b>2,421.7910</b>

Modesto WWMP - Stanislaus County, Winter

**3.7 Alignment D - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1167	0.0865	0.8115	1.6700e-003	0.1643	1.3100e-003	0.1656	0.0436	1.2100e-003	0.0448		166.4566	166.4566	6.5000e-003		166.6190
<b>Total</b>	<b>0.1167</b>	<b>0.0865</b>	<b>0.8115</b>	<b>1.6700e-003</b>	<b>0.1643</b>	<b>1.3100e-003</b>	<b>0.1656</b>	<b>0.0436</b>	<b>1.2100e-003</b>	<b>0.0448</b>		<b>166.4566</b>	<b>166.4566</b>	<b>6.5000e-003</b>		<b>166.6190</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3074	9.9194	16.5230	0.0240		0.4342	0.4342		0.4488	0.4488	0.0000	2,403.2657	2,403.2657	0.7410		2,421.7910
<b>Total</b>	<b>0.3074</b>	<b>9.9194</b>	<b>16.5230</b>	<b>0.0240</b>		<b>0.4342</b>	<b>0.4342</b>		<b>0.4488</b>	<b>0.4488</b>	<b>0.0000</b>	<b>2,403.2657</b>	<b>2,403.2657</b>	<b>0.7410</b>		<b>2,421.7910</b>

Modesto WWMP - Stanislaus County, Winter

**3.7 Alignment D - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1167	0.0865	0.8115	1.6700e-003	0.1643	1.3100e-003	0.1656	0.0436	1.2100e-003	0.0448		166.4566	166.4566	6.5000e-003		166.6190
<b>Total</b>	<b>0.1167</b>	<b>0.0865</b>	<b>0.8115</b>	<b>1.6700e-003</b>	<b>0.1643</b>	<b>1.3100e-003</b>	<b>0.1656</b>	<b>0.0436</b>	<b>1.2100e-003</b>	<b>0.0448</b>		<b>166.4566</b>	<b>166.4566</b>	<b>6.5000e-003</b>		<b>166.6190</b>

**3.8 Gravity System - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3917	14.7681	10.9635	0.0240		0.6139	0.6139		0.5656	0.5656		2,403.2657	2,403.2657	0.7410		2,421.7910
<b>Total</b>	<b>1.3917</b>	<b>14.7681</b>	<b>10.9635</b>	<b>0.0240</b>		<b>0.6139</b>	<b>0.6139</b>		<b>0.5656</b>	<b>0.5656</b>		<b>2,403.2657</b>	<b>2,403.2657</b>	<b>0.7410</b>		<b>2,421.7910</b>

Modesto WWMP - Stanislaus County, Winter

**3.8 Gravity System - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1167	0.0865	0.8115	1.6700e-003	0.1643	1.3100e-003	0.1656	0.0436	1.2100e-003	0.0448		166.4566	166.4566	6.5000e-003		166.6190
<b>Total</b>	<b>0.1167</b>	<b>0.0865</b>	<b>0.8115</b>	<b>1.6700e-003</b>	<b>0.1643</b>	<b>1.3100e-003</b>	<b>0.1656</b>	<b>0.0436</b>	<b>1.2100e-003</b>	<b>0.0448</b>		<b>166.4566</b>	<b>166.4566</b>	<b>6.5000e-003</b>		<b>166.6190</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3074	9.9194	16.5230	0.0240		0.4342	0.4342		0.4488	0.4488	0.0000	2,403.2657	2,403.2657	0.7410		2,421.7910
<b>Total</b>	<b>0.3074</b>	<b>9.9194</b>	<b>16.5230</b>	<b>0.0240</b>		<b>0.4342</b>	<b>0.4342</b>		<b>0.4488</b>	<b>0.4488</b>	<b>0.0000</b>	<b>2,403.2657</b>	<b>2,403.2657</b>	<b>0.7410</b>		<b>2,421.7910</b>

Modesto WWMP - Stanislaus County, Winter

**3.8 Gravity System - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1167	0.0865	0.8115	1.6700e-003	0.1643	1.3100e-003	0.1656	0.0436	1.2100e-003	0.0448		166.4566	166.4566	6.5000e-003		166.6190
<b>Total</b>	<b>0.1167</b>	<b>0.0865</b>	<b>0.8115</b>	<b>1.6700e-003</b>	<b>0.1643</b>	<b>1.3100e-003</b>	<b>0.1656</b>	<b>0.0436</b>	<b>1.2100e-003</b>	<b>0.0448</b>		<b>166.4566</b>	<b>166.4566</b>	<b>6.5000e-003</b>		<b>166.6190</b>

**3.8 Gravity System - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2715	12.8046	10.7337	0.0240		0.5299	0.5299		0.4883	0.4883		2,364.4621	2,364.4621	0.7408		2,382.9811
<b>Total</b>	<b>1.2715</b>	<b>12.8046</b>	<b>10.7337</b>	<b>0.0240</b>		<b>0.5299</b>	<b>0.5299</b>		<b>0.4883</b>	<b>0.4883</b>		<b>2,364.4621</b>	<b>2,364.4621</b>	<b>0.7408</b>		<b>2,382.9811</b>

Modesto WWMP - Stanislaus County, Winter

**3.8 Gravity System - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1052	0.0758	0.7163	1.6300e-003	0.1643	1.2700e-003	0.1656	0.0436	1.1700e-003	0.0448		161.6576	161.6576	5.7200e-003		161.8006
<b>Total</b>	<b>0.1052</b>	<b>0.0758</b>	<b>0.7163</b>	<b>1.6300e-003</b>	<b>0.1643</b>	<b>1.2700e-003</b>	<b>0.1656</b>	<b>0.0436</b>	<b>1.1700e-003</b>	<b>0.0448</b>		<b>161.6576</b>	<b>161.6576</b>	<b>5.7200e-003</b>		<b>161.8006</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3455	10.6006	16.6460	0.0240		0.4597	0.4597		0.4722	0.4722	0.0000	2,364.4621	2,364.4621	0.7408		2,382.9811
<b>Total</b>	<b>0.3455</b>	<b>10.6006</b>	<b>16.6460</b>	<b>0.0240</b>		<b>0.4597</b>	<b>0.4597</b>		<b>0.4722</b>	<b>0.4722</b>	<b>0.0000</b>	<b>2,364.4621</b>	<b>2,364.4621</b>	<b>0.7408</b>		<b>2,382.9811</b>



Modesto WWMP - Stanislaus County, Winter

**3.8 Gravity System - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1052	0.0758	0.7163	1.6300e-003	0.1643	1.2700e-003	0.1656	0.0436	1.1700e-003	0.0448		161.6576	161.6576	5.7200e-003		161.8006
<b>Total</b>	<b>0.1052</b>	<b>0.0758</b>	<b>0.7163</b>	<b>1.6300e-003</b>	<b>0.1643</b>	<b>1.2700e-003</b>	<b>0.1656</b>	<b>0.0436</b>	<b>1.1700e-003</b>	<b>0.0448</b>		<b>161.6576</b>	<b>161.6576</b>	<b>5.7200e-003</b>		<b>161.8006</b>

**3.9 RTPS - Grading - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0246	0.0000	0.0246	3.2700e-003	0.0000	3.2700e-003			0.0000			0.0000
Off-Road	2.7558	30.7931	20.0400	0.0449		1.3905	1.3905		1.2793	1.2793		4,519.2895	4,519.2895	1.4069		4,554.4624
<b>Total</b>	<b>2.7558</b>	<b>30.7931</b>	<b>20.0400</b>	<b>0.0449</b>	<b>0.0246</b>	<b>1.3905</b>	<b>1.4151</b>	<b>3.2700e-003</b>	<b>1.2793</b>	<b>1.2826</b>		<b>4,519.2895</b>	<b>4,519.2895</b>	<b>1.4069</b>		<b>4,554.4624</b>

Modesto WWMP - Stanislaus County, Winter

**3.9 RTPS - Grading - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1458	5.0059	0.7334	0.0128	0.3224	0.0206	0.3431	0.0871	0.0198	0.1068		1,340.5696	1,340.5696	0.0933		1,342.9027
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1167	0.0865	0.8115	1.6700e-003	0.1643	1.3100e-003	0.1656	0.0436	1.2100e-003	0.0448		166.4566	166.4566	6.5000e-003		166.6190
<b>Total</b>	<b>0.2625</b>	<b>5.0923</b>	<b>1.5449</b>	<b>0.0144</b>	<b>0.4867</b>	<b>0.0220</b>	<b>0.5087</b>	<b>0.1306</b>	<b>0.0210</b>	<b>0.1516</b>		<b>1,507.0261</b>	<b>1,507.0261</b>	<b>0.0998</b>		<b>1,509.5217</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0246	0.0000	0.0246	3.2700e-003	0.0000	3.2700e-003			0.0000			0.0000
Off-Road	0.8350	20.6507	29.3462	0.0449		0.9528	0.9528		0.9674	0.9674	0.0000	4,519.2895	4,519.2895	1.4069		4,554.4624
<b>Total</b>	<b>0.8350</b>	<b>20.6507</b>	<b>29.3462</b>	<b>0.0449</b>	<b>0.0246</b>	<b>0.9528</b>	<b>0.9773</b>	<b>3.2700e-003</b>	<b>0.9674</b>	<b>0.9706</b>	<b>0.0000</b>	<b>4,519.2895</b>	<b>4,519.2895</b>	<b>1.4069</b>		<b>4,554.4624</b>

Modesto WWMP - Stanislaus County, Winter

**3.9 RTPS - Grading - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1458	5.0059	0.7334	0.0128	0.3224	0.0206	0.3431	0.0871	0.0198	0.1068		1,340.5696	1,340.5696	0.0933		1,342.9027
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1167	0.0865	0.8115	1.6700e-003	0.1643	1.3100e-003	0.1656	0.0436	1.2100e-003	0.0448		166.4566	166.4566	6.5000e-003		166.6190
<b>Total</b>	<b>0.2625</b>	<b>5.0923</b>	<b>1.5449</b>	<b>0.0144</b>	<b>0.4867</b>	<b>0.0220</b>	<b>0.5087</b>	<b>0.1306</b>	<b>0.0210</b>	<b>0.1516</b>		<b>1,507.0261</b>	<b>1,507.0261</b>	<b>0.0998</b>		<b>1,509.5217</b>

**3.9 RTPS - Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0246	0.0000	0.0246	3.2700e-003	0.0000	3.2700e-003			0.0000			0.0000
Off-Road	2.4804	26.9268	19.4885	0.0449		1.1915	1.1915		1.0962	1.0962		4,443.5369	4,443.5369	1.4059		4,478.6841
<b>Total</b>	<b>2.4804</b>	<b>26.9268</b>	<b>19.4885</b>	<b>0.0449</b>	<b>0.0246</b>	<b>1.1915</b>	<b>1.2161</b>	<b>3.2700e-003</b>	<b>1.0962</b>	<b>1.0995</b>		<b>4,443.5369</b>	<b>4,443.5369</b>	<b>1.4059</b>		<b>4,478.6841</b>

Modesto WWMP - Stanislaus County, Winter

**3.9 RTPS - Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1388	4.7285	0.7081	0.0126	1.2533	0.0187	1.2721	0.3156	0.0179	0.3335		1,325.6338	1,325.6338	0.0915		1,327.9206
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1052	0.0758	0.7163	1.6300e-003	0.1643	1.2700e-003	0.1656	0.0436	1.1700e-003	0.0448		161.6576	161.6576	5.7200e-003		161.8006
<b>Total</b>	<b>0.2440</b>	<b>4.8043</b>	<b>1.4243</b>	<b>0.0143</b>	<b>1.4176</b>	<b>0.0200</b>	<b>1.4376</b>	<b>0.3591</b>	<b>0.0191</b>	<b>0.3782</b>		<b>1,487.2915</b>	<b>1,487.2915</b>	<b>0.0972</b>		<b>1,489.7211</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0246	0.0000	0.0246	3.2700e-003	0.0000	3.2700e-003			0.0000			0.0000
Off-Road	0.8731	21.3319	29.4691	0.0449		0.9782	0.9782		0.9908	0.9908	0.0000	4,443.5369	4,443.5369	1.4059		4,478.6841
<b>Total</b>	<b>0.8731</b>	<b>21.3319</b>	<b>29.4691</b>	<b>0.0449</b>	<b>0.0246</b>	<b>0.9782</b>	<b>1.0028</b>	<b>3.2700e-003</b>	<b>0.9908</b>	<b>0.9940</b>	<b>0.0000</b>	<b>4,443.5369</b>	<b>4,443.5369</b>	<b>1.4059</b>		<b>4,478.6841</b>

Modesto WWMP - Stanislaus County, Winter

**3.9 RTPS - Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1388	4.7285	0.7081	0.0126	1.2533	0.0187	1.2721	0.3156	0.0179	0.3335		1,325.6338	1,325.6338	0.0915		1,327.9206
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1052	0.0758	0.7163	1.6300e-003	0.1643	1.2700e-003	0.1656	0.0436	1.1700e-003	0.0448		161.6576	161.6576	5.7200e-003		161.8006
<b>Total</b>	<b>0.2440</b>	<b>4.8043</b>	<b>1.4243</b>	<b>0.0143</b>	<b>1.4176</b>	<b>0.0200</b>	<b>1.4376</b>	<b>0.3591</b>	<b>0.0191</b>	<b>0.3782</b>		<b>1,487.2915</b>	<b>1,487.2915</b>	<b>0.0972</b>		<b>1,489.7211</b>

**3.10 SPS - Site Prep - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2902	0.0000	0.2902	0.0387	0.0000	0.0387			0.0000			0.0000
Off-Road	0.7190	8.4208	5.0111	0.0114		0.3307	0.3307		0.3043	0.3043		1,148.4475	1,148.4475	0.3575		1,157.3857
<b>Total</b>	<b>0.7190</b>	<b>8.4208</b>	<b>5.0111</b>	<b>0.0114</b>	<b>0.2902</b>	<b>0.3307</b>	<b>0.6209</b>	<b>0.0387</b>	<b>0.3043</b>	<b>0.3430</b>		<b>1,148.4475</b>	<b>1,148.4475</b>	<b>0.3575</b>		<b>1,157.3857</b>

Modesto WWMP - Stanislaus County, Winter

**3.10 SPS - Site Prep - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7226	59.1602	8.6674	0.1509	3.2773	0.2440	3.5213	0.8981	0.2334	1.1315		15,843.0951	15,843.0951	1.1029		15,870.6683
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0432	0.4058	8.4000e-004	0.0822	6.6000e-004	0.0828	0.0218	6.1000e-004	0.0224		83.2283	83.2283	3.2500e-003		83.3095
<b>Total</b>	<b>1.7810</b>	<b>59.2035</b>	<b>9.0731</b>	<b>0.1517</b>	<b>3.3595</b>	<b>0.2446</b>	<b>3.6041</b>	<b>0.9199</b>	<b>0.2340</b>	<b>1.1539</b>		<b>15,926.3234</b>	<b>15,926.3234</b>	<b>1.1062</b>		<b>15,953.9777</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2902	0.0000	0.2902	0.0387	0.0000	0.0387			0.0000			0.0000
Off-Road	0.2817	5.4470	7.2692	0.0114		0.2320	0.2320		0.2320	0.2320	0.0000	1,148.4475	1,148.4475	0.3575		1,157.3857
<b>Total</b>	<b>0.2817</b>	<b>5.4470</b>	<b>7.2692</b>	<b>0.0114</b>	<b>0.2902</b>	<b>0.2320</b>	<b>0.5222</b>	<b>0.0387</b>	<b>0.2320</b>	<b>0.2707</b>	<b>0.0000</b>	<b>1,148.4475</b>	<b>1,148.4475</b>	<b>0.3575</b>		<b>1,157.3857</b>

Modesto WWMP - Stanislaus County, Winter

**3.10 SPS - Site Prep - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7226	59.1602	8.6674	0.1509	3.2773	0.2440	3.5213	0.8981	0.2334	1.1315		15,843.0951	15,843.0951	1.1029		15,870.6683
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0432	0.4058	8.4000e-004	0.0822	6.6000e-004	0.0828	0.0218	6.1000e-004	0.0224		83.2283	83.2283	3.2500e-003		83.3095
<b>Total</b>	<b>1.7810</b>	<b>59.2035</b>	<b>9.0731</b>	<b>0.1517</b>	<b>3.3595</b>	<b>0.2446</b>	<b>3.6041</b>	<b>0.9199</b>	<b>0.2340</b>	<b>1.1539</b>		<b>15,926.3234</b>	<b>15,926.3234</b>	<b>1.1062</b>		<b>15,953.9777</b>

**3.11 SPS - Grading - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1330	0.0000	0.1330	0.0177	0.0000	0.0177			0.0000			0.0000
Off-Road	1.1470	13.5364	6.9025	0.0157		0.5522	0.5522		0.5080	0.5080		1,583.8960	1,583.8960	0.4931		1,596.2232
<b>Total</b>	<b>1.1470</b>	<b>13.5364</b>	<b>6.9025</b>	<b>0.0157</b>	<b>0.1330</b>	<b>0.5522</b>	<b>0.6851</b>	<b>0.0177</b>	<b>0.5080</b>	<b>0.5257</b>		<b>1,583.8960</b>	<b>1,583.8960</b>	<b>0.4931</b>		<b>1,596.2232</b>

Modesto WWMP - Stanislaus County, Winter

**3.11 SPS - Grading - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7895	27.1151	3.9725	0.0692	1.5021	0.1118	1.6139	0.4116	0.1070	0.5186		7,261.4186	7,261.4186	0.5055		7,274.0563
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0432	0.4058	8.4000e-004	0.0822	6.6000e-004	0.0828	0.0218	6.1000e-004	0.0224		83.2283	83.2283	3.2500e-003		83.3095
<b>Total</b>	<b>0.8479</b>	<b>27.1583</b>	<b>4.3783</b>	<b>0.0700</b>	<b>1.5843</b>	<b>0.1125</b>	<b>1.6967</b>	<b>0.4334</b>	<b>0.1076</b>	<b>0.5410</b>		<b>7,344.6469</b>	<b>7,344.6469</b>	<b>0.5088</b>		<b>7,357.3658</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1330	0.0000	0.1330	0.0177	0.0000	0.0177			0.0000			0.0000
Off-Road	0.3881	7.5028	9.5731	0.0157		0.3100	0.3100		0.3100	0.3100	0.0000	1,583.8960	1,583.8960	0.4931		1,596.2232
<b>Total</b>	<b>0.3881</b>	<b>7.5028</b>	<b>9.5731</b>	<b>0.0157</b>	<b>0.1330</b>	<b>0.3100</b>	<b>0.4430</b>	<b>0.0177</b>	<b>0.3100</b>	<b>0.3277</b>	<b>0.0000</b>	<b>1,583.8960</b>	<b>1,583.8960</b>	<b>0.4931</b>		<b>1,596.2232</b>



Modesto WWMP - Stanislaus County, Winter

**3.11 SPS - Grading - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7895	27.1151	3.9725	0.0692	1.5021	0.1118	1.6139	0.4116	0.1070	0.5186		7,261.4186	7,261.4186	0.5055		7,274.0563
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0432	0.4058	8.4000e-004	0.0822	6.6000e-004	0.0828	0.0218	6.1000e-004	0.0224		83.2283	83.2283	3.2500e-003		83.3095
<b>Total</b>	<b>0.8479</b>	<b>27.1583</b>	<b>4.3783</b>	<b>0.0700</b>	<b>1.5843</b>	<b>0.1125</b>	<b>1.6967</b>	<b>0.4334</b>	<b>0.1076</b>	<b>0.5410</b>		<b>7,344.6469</b>	<b>7,344.6469</b>	<b>0.5088</b>		<b>7,357.3658</b>

**3.12 SPS - Construction - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4491	15.5834	9.5781	0.0250		0.6059	0.6059		0.5575	0.5575		2,514.0092	2,514.0092	0.7827		2,533.5753
<b>Total</b>	<b>1.4491</b>	<b>15.5834</b>	<b>9.5781</b>	<b>0.0250</b>		<b>0.6059</b>	<b>0.6059</b>		<b>0.5575</b>	<b>0.5575</b>		<b>2,514.0092</b>	<b>2,514.0092</b>	<b>0.7827</b>		<b>2,533.5753</b>

Modesto WWMP - Stanislaus County, Winter

**3.12 SPS - Construction - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0432	0.4058	8.4000e-004	0.0822	6.6000e-004	0.0828	0.0218	6.1000e-004	0.0224		83.2283	83.2283	3.2500e-003		83.3095
<b>Total</b>	<b>0.0584</b>	<b>0.0432</b>	<b>0.4058</b>	<b>8.4000e-004</b>	<b>0.0822</b>	<b>6.6000e-004</b>	<b>0.0828</b>	<b>0.0218</b>	<b>6.1000e-004</b>	<b>0.0224</b>		<b>83.2283</b>	<b>83.2283</b>	<b>3.2500e-003</b>		<b>83.3095</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2070	9.9656	16.9485	0.0250		0.4142	0.4142		0.4360	0.4360	0.0000	2,514.0092	2,514.0092	0.7827		2,533.5753
<b>Total</b>	<b>0.2070</b>	<b>9.9656</b>	<b>16.9485</b>	<b>0.0250</b>		<b>0.4142</b>	<b>0.4142</b>		<b>0.4360</b>	<b>0.4360</b>	<b>0.0000</b>	<b>2,514.0092</b>	<b>2,514.0092</b>	<b>0.7827</b>		<b>2,533.5753</b>

Modesto WWMP - Stanislaus County, Winter

**3.12 SPS - Construction - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0432	0.4058	8.4000e-004	0.0822	6.6000e-004	0.0828	0.0218	6.1000e-004	0.0224		83.2283	83.2283	3.2500e-003		83.3095
<b>Total</b>	<b>0.0584</b>	<b>0.0432</b>	<b>0.4058</b>	<b>8.4000e-004</b>	<b>0.0822</b>	<b>6.6000e-004</b>	<b>0.0828</b>	<b>0.0218</b>	<b>6.1000e-004</b>	<b>0.0224</b>		<b>83.2283</b>	<b>83.2283</b>	<b>3.2500e-003</b>		<b>83.3095</b>

**3.13 SPS - Paving - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3343	15.1252	11.2134	0.0213		0.6572	0.6572		0.6046	0.6046		2,141.1655	2,141.1655	0.6666		2,157.8298
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.3343</b>	<b>15.1252</b>	<b>11.2134</b>	<b>0.0213</b>		<b>0.6572</b>	<b>0.6572</b>		<b>0.6046</b>	<b>0.6046</b>		<b>2,141.1655</b>	<b>2,141.1655</b>	<b>0.6666</b>		<b>2,157.8298</b>

Modesto WWMP - Stanislaus County, Winter

**3.13 SPS - Paving - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0432	0.4058	8.4000e-004	0.0822	6.6000e-004	0.0828	0.0218	6.1000e-004	0.0224		83.2283	83.2283	3.2500e-003		83.3095
<b>Total</b>	<b>0.0584</b>	<b>0.0432</b>	<b>0.4058</b>	<b>8.4000e-004</b>	<b>0.0822</b>	<b>6.6000e-004</b>	<b>0.0828</b>	<b>0.0218</b>	<b>6.1000e-004</b>	<b>0.0224</b>		<b>83.2283</b>	<b>83.2283</b>	<b>3.2500e-003</b>		<b>83.3095</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5244	10.1378	14.7502	0.0213		0.4585	0.4585		0.4585	0.4585	0.0000	2,141.1655	2,141.1655	0.6666		2,157.8298
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5244</b>	<b>10.1378</b>	<b>14.7502</b>	<b>0.0213</b>		<b>0.4585</b>	<b>0.4585</b>		<b>0.4585</b>	<b>0.4585</b>	<b>0.0000</b>	<b>2,141.1655</b>	<b>2,141.1655</b>	<b>0.6666</b>		<b>2,157.8298</b>

Modesto WWMP - Stanislaus County, Winter

**3.13 SPS - Paving - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0432	0.4058	8.4000e-004	0.0822	6.6000e-004	0.0828	0.0218	6.1000e-004	0.0224		83.2283	83.2283	3.2500e-003		83.3095
<b>Total</b>	<b>0.0584</b>	<b>0.0432</b>	<b>0.4058</b>	<b>8.4000e-004</b>	<b>0.0822</b>	<b>6.6000e-004</b>	<b>0.0828</b>	<b>0.0218</b>	<b>6.1000e-004</b>	<b>0.0224</b>		<b>83.2283</b>	<b>83.2283</b>	<b>3.2500e-003</b>		<b>83.3095</b>

**3.14 SPS - Architectural - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	158.5170					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.2031	13.6499	5.9371	0.0195		0.4845	0.4845		0.4457	0.4457		1,958.4786	1,958.4786	0.6097		1,973.7211
<b>Total</b>	<b>159.7201</b>	<b>13.6499</b>	<b>5.9371</b>	<b>0.0195</b>		<b>0.4845</b>	<b>0.4845</b>		<b>0.4457</b>	<b>0.4457</b>		<b>1,958.4786</b>	<b>1,958.4786</b>	<b>0.6097</b>		<b>1,973.7211</b>

Modesto WWMP - Stanislaus County, Winter

**3.14 SPS - Architectural - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0292	0.0216	0.2029	4.2000e-004	0.0411	3.3000e-004	0.0414	0.0109	3.0000e-004	0.0112		41.6141	41.6141	1.6200e-003		41.6547
<b>Total</b>	<b>0.0292</b>	<b>0.0216</b>	<b>0.2029</b>	<b>4.2000e-004</b>	<b>0.0411</b>	<b>3.3000e-004</b>	<b>0.0414</b>	<b>0.0109</b>	<b>3.0000e-004</b>	<b>0.0112</b>		<b>41.6141</b>	<b>41.6141</b>	<b>1.6200e-003</b>		<b>41.6547</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	158.5170					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2080	7.9962	12.0382	0.0195		0.3105	0.3105		0.3250	0.3250	0.0000	1,958.4786	1,958.4786	0.6097		1,973.7211
<b>Total</b>	<b>158.7250</b>	<b>7.9962</b>	<b>12.0382</b>	<b>0.0195</b>		<b>0.3105</b>	<b>0.3105</b>		<b>0.3250</b>	<b>0.3250</b>	<b>0.0000</b>	<b>1,958.4786</b>	<b>1,958.4786</b>	<b>0.6097</b>		<b>1,973.7211</b>

Modesto WWMP - Stanislaus County, Winter

**3.14 SPS - Architectural - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0292	0.0216	0.2029	4.2000e-004	0.0411	3.3000e-004	0.0414	0.0109	3.0000e-004	0.0112		41.6141	41.6141	1.6200e-003		41.6547
<b>Total</b>	<b>0.0292</b>	<b>0.0216</b>	<b>0.2029</b>	<b>4.2000e-004</b>	<b>0.0411</b>	<b>3.3000e-004</b>	<b>0.0414</b>	<b>0.0109</b>	<b>3.0000e-004</b>	<b>0.0112</b>		<b>41.6141</b>	<b>41.6141</b>	<b>1.6200e-003</b>		<b>41.6547</b>

**3.15 RTPS - Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2253	23.7489	14.6426	0.0390		0.9236	0.9236		0.8497	0.8497		3,864.0328	3,864.0328	1.2225		3,894.5963
<b>Total</b>	<b>2.2253</b>	<b>23.7489</b>	<b>14.6426</b>	<b>0.0390</b>		<b>0.9236</b>	<b>0.9236</b>		<b>0.8497</b>	<b>0.8497</b>		<b>3,864.0328</b>	<b>3,864.0328</b>	<b>1.2225</b>		<b>3,894.5963</b>

Modesto WWMP - Stanislaus County, Winter

**3.15 RTPS - Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1052	0.0758	0.7163	1.6300e-003	0.1643	1.2700e-003	0.1656	0.0436	1.1700e-003	0.0448		161.6576	161.6576	5.7200e-003		161.8006
<b>Total</b>	<b>0.1052</b>	<b>0.0758</b>	<b>0.7163</b>	<b>1.6300e-003</b>	<b>0.1643</b>	<b>1.2700e-003</b>	<b>0.1656</b>	<b>0.0436</b>	<b>1.1700e-003</b>	<b>0.0448</b>		<b>161.6576</b>	<b>161.6576</b>	<b>5.7200e-003</b>		<b>161.8006</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4929	17.5160	25.8842	0.0390		0.7337	0.7337		0.7588	0.7588	0.0000	3,864.0328	3,864.0328	1.2225		3,894.5963
<b>Total</b>	<b>0.4929</b>	<b>17.5160</b>	<b>25.8842</b>	<b>0.0390</b>		<b>0.7337</b>	<b>0.7337</b>		<b>0.7588</b>	<b>0.7588</b>	<b>0.0000</b>	<b>3,864.0328</b>	<b>3,864.0328</b>	<b>1.2225</b>		<b>3,894.5963</b>



Modesto WWMP - Stanislaus County, Winter

**3.15 RTPS - Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1052	0.0758	0.7163	1.6300e-003	0.1643	1.2700e-003	0.1656	0.0436	1.1700e-003	0.0448		161.6576	161.6576	5.7200e-003		161.8006
<b>Total</b>	<b>0.1052</b>	<b>0.0758</b>	<b>0.7163</b>	<b>1.6300e-003</b>	<b>0.1643</b>	<b>1.2700e-003</b>	<b>0.1656</b>	<b>0.0436</b>	<b>1.1700e-003</b>	<b>0.0448</b>		<b>161.6576</b>	<b>161.6576</b>	<b>5.7200e-003</b>		<b>161.8006</b>

**3.15 RTPS - Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0642	21.0933	14.0976	0.0390		0.8142	0.8142		0.7490	0.7490		3,778.7719	3,778.7719	1.2221		3,809.3252
<b>Total</b>	<b>2.0642</b>	<b>21.0933</b>	<b>14.0976</b>	<b>0.0390</b>		<b>0.8142</b>	<b>0.8142</b>		<b>0.7490</b>	<b>0.7490</b>		<b>3,778.7719</b>	<b>3,778.7719</b>	<b>1.2221</b>		<b>3,809.3252</b>

Modesto WWMP - Stanislaus County, Winter

**3.15 RTPS - Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0957	0.0667	0.6368	1.5700e-003	0.1643	1.2300e-003	0.1655	0.0436	1.1300e-003	0.0447		156.7108	156.7108	4.9600e-003		156.8349
<b>Total</b>	<b>0.0957</b>	<b>0.0667</b>	<b>0.6368</b>	<b>1.5700e-003</b>	<b>0.1643</b>	<b>1.2300e-003</b>	<b>0.1655</b>	<b>0.0436</b>	<b>1.1300e-003</b>	<b>0.0447</b>		<b>156.7108</b>	<b>156.7108</b>	<b>4.9600e-003</b>		<b>156.8349</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5490	18.5562	26.1082	0.0390		0.7710	0.7710		0.7931	0.7931	0.0000	3,778.7719	3,778.7719	1.2221		3,809.3252
<b>Total</b>	<b>0.5490</b>	<b>18.5562</b>	<b>26.1082</b>	<b>0.0390</b>		<b>0.7710</b>	<b>0.7710</b>		<b>0.7931</b>	<b>0.7931</b>	<b>0.0000</b>	<b>3,778.7719</b>	<b>3,778.7719</b>	<b>1.2221</b>		<b>3,809.3252</b>

Modesto WWMP - Stanislaus County, Winter

**3.15 RTPS - Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0957	0.0667	0.6368	1.5700e-003	0.1643	1.2300e-003	0.1655	0.0436	1.1300e-003	0.0447		156.7108	156.7108	4.9600e-003		156.8349
<b>Total</b>	<b>0.0957</b>	<b>0.0667</b>	<b>0.6368</b>	<b>1.5700e-003</b>	<b>0.1643</b>	<b>1.2300e-003</b>	<b>0.1655</b>	<b>0.0436</b>	<b>1.1300e-003</b>	<b>0.0447</b>		<b>156.7108</b>	<b>156.7108</b>	<b>4.9600e-003</b>		<b>156.8349</b>

**3.16 RTPS - Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0476	10.7656	11.0471	0.0213		0.4631	0.4631		0.4261	0.4261		2,060.6710	2,060.6710	0.6665		2,077.3326
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0476</b>	<b>10.7656</b>	<b>11.0471</b>	<b>0.0213</b>		<b>0.4631</b>	<b>0.4631</b>		<b>0.4261</b>	<b>0.4261</b>		<b>2,060.6710</b>	<b>2,060.6710</b>	<b>0.6665</b>		<b>2,077.3326</b>

Modesto WWMP - Stanislaus County, Winter

**3.16 RTPS - Paving - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0442	0.0297	0.2895	7.6000e-004	0.0822	6.0000e-004	0.0827	0.0218	5.5000e-004	0.0223		75.8807	75.8807	2.2200e-003		75.9363
<b>Total</b>	<b>0.0442</b>	<b>0.0297</b>	<b>0.2895</b>	<b>7.6000e-004</b>	<b>0.0822</b>	<b>6.0000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.5000e-004</b>	<b>0.0223</b>		<b>75.8807</b>	<b>75.8807</b>	<b>2.2200e-003</b>		<b>75.9363</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5244	10.1378	14.7502	0.0213		0.4585	0.4585		0.4585	0.4585	0.0000	2,060.6710	2,060.6710	0.6665		2,077.3326
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5244</b>	<b>10.1378</b>	<b>14.7502</b>	<b>0.0213</b>		<b>0.4585</b>	<b>0.4585</b>		<b>0.4585</b>	<b>0.4585</b>	<b>0.0000</b>	<b>2,060.6710</b>	<b>2,060.6710</b>	<b>0.6665</b>		<b>2,077.3326</b>

Modesto WWMP - Stanislaus County, Winter

**3.16 RTPS - Paving - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0442	0.0297	0.2895	7.6000e-004	0.0822	6.0000e-004	0.0827	0.0218	5.5000e-004	0.0223		75.8807	75.8807	2.2200e-003		75.9363
<b>Total</b>	<b>0.0442</b>	<b>0.0297</b>	<b>0.2895</b>	<b>7.6000e-004</b>	<b>0.0822</b>	<b>6.0000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.5000e-004</b>	<b>0.0223</b>		<b>75.8807</b>	<b>75.8807</b>	<b>2.2200e-003</b>		<b>75.9363</b>

**3.17 RTPS - Architectural Coating - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	158.5170					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.8632	8.1612	4.8034	0.0179		0.2897	0.2897		0.2665	0.2665		1,732.4427	1,732.4427	0.5603		1,746.4503
<b>Total</b>	<b>159.3802</b>	<b>8.1612</b>	<b>4.8034</b>	<b>0.0179</b>		<b>0.2897</b>	<b>0.2897</b>		<b>0.2665</b>	<b>0.2665</b>		<b>1,732.4427</b>	<b>1,732.4427</b>	<b>0.5603</b>		<b>1,746.4503</b>

Modesto WWMP - Stanislaus County, Winter

**3.17 RTPS - Architectural Coating - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0221	0.0149	0.1448	3.8000e-004	0.0411	3.0000e-004	0.0414	0.0109	2.7000e-004	0.0112		37.9403	37.9403	1.1100e-003		37.9681
<b>Total</b>	<b>0.0221</b>	<b>0.0149</b>	<b>0.1448</b>	<b>3.8000e-004</b>	<b>0.0411</b>	<b>3.0000e-004</b>	<b>0.0414</b>	<b>0.0109</b>	<b>2.7000e-004</b>	<b>0.0112</b>		<b>37.9403</b>	<b>37.9403</b>	<b>1.1100e-003</b>		<b>37.9681</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	158.5170					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2698	9.0857	11.5587	0.0179		0.3486	0.3486		0.3579	0.3579	0.0000	1,732.4427	1,732.4427	0.5603		1,746.4503
<b>Total</b>	<b>158.7868</b>	<b>9.0857</b>	<b>11.5587</b>	<b>0.0179</b>		<b>0.3486</b>	<b>0.3486</b>		<b>0.3579</b>	<b>0.3579</b>	<b>0.0000</b>	<b>1,732.4427</b>	<b>1,732.4427</b>	<b>0.5603</b>		<b>1,746.4503</b>

Modesto WWMP - Stanislaus County, Winter

**3.17 RTPS - Architectural Coating - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0221	0.0149	0.1448	3.8000e-004	0.0411	3.0000e-004	0.0414	0.0109	2.7000e-004	0.0112		37.9403	37.9403	1.1100e-003		37.9681
<b>Total</b>	<b>0.0221</b>	<b>0.0149</b>	<b>0.1448</b>	<b>3.8000e-004</b>	<b>0.0411</b>	<b>3.0000e-004</b>	<b>0.0414</b>	<b>0.0109</b>	<b>2.7000e-004</b>	<b>0.0112</b>		<b>37.9403</b>	<b>37.9403</b>	<b>1.1100e-003</b>		<b>37.9681</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.5800e-003	0.0242	0.0299	1.1000e-004	7.1500e-003	1.4000e-004	7.2800e-003	1.9200e-003	1.3000e-004	2.0500e-003		11.1588	11.1588	7.7000e-004		11.1780
Unmitigated	2.5800e-003	0.0242	0.0299	1.1000e-004	7.1500e-003	1.4000e-004	7.2800e-003	1.9200e-003	1.3000e-004	2.0500e-003		11.1588	11.1588	7.7000e-004		11.1780

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	1.14	1.14	1.14	3,328	3,328
Total	1.14	1.14	1.14	3,328	3,328

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.501303	0.035285	0.172289	0.136094	0.027047	0.006047	0.027345	0.084787	0.001820	0.001183	0.004865	0.000869	0.001067

5.0 Energy Detail

Historical Energy Use: N



Modesto WWMP - Stanislaus County, Winter

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

Modesto WWMP - Stanislaus County, Winter

**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.4375	5.0000e-005	5.8600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0125	0.0125	3.0000e-005		0.0133
Unmitigated	1.4375	5.0000e-005	5.8600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0125	0.0125	3.0000e-005		0.0133

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**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2172					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.5000e-004	5.0000e-005	5.8600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0125	0.0125	3.0000e-005		0.0133
<b>Total</b>	<b>1.4375</b>	<b>5.0000e-005</b>	<b>5.8600e-003</b>	<b>0.0000</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>0.0125</b>	<b>0.0125</b>	<b>3.0000e-005</b>		<b>0.0133</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2172					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.5000e-004	5.0000e-005	5.8600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0125	0.0125	3.0000e-005		0.0133
<b>Total</b>	<b>1.4375</b>	<b>5.0000e-005</b>	<b>5.8600e-003</b>	<b>0.0000</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>0.0125</b>	<b>0.0125</b>	<b>3.0000e-005</b>		<b>0.0133</b>

**7.0 Water Detail**

Modesto WWMP - Stanislaus County, Winter

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	4	0	200	208	0.73	Diesel
Emergency Generator	2	0	200	38	0.73	Diesel

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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Modesto WWMP - Stanislaus County, Winter

**10.1 Stationary Sources**

**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Equipment Type	lb/day										lb/day						
Emergency Generator - Diesel (175 - 300 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Emergency Generator - Diesel (25 - 50 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>			<b>0.0000</b>

**11.0 Vegetation**

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Appendix C

**Biological Resources Technical Information**





# IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

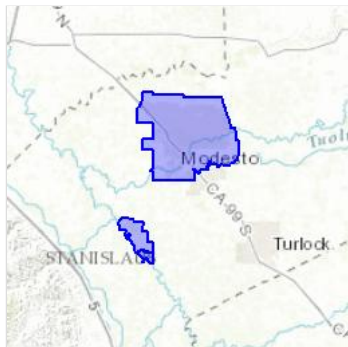
## Project information

### NAME

City of Modesto Wastewater Master Plan

### LOCATION

Stanislaus County, California



## Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📠 (916) 414-6713

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

## Endangered species

**This resource list is for informational purposes only and does not constitute an analysis of project level impacts.**

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Log in to IPaC.

2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

Listed species<sup>1</sup> are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service.

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.

The following species are potentially affected by activities in this location:

## Mammals

NAME	STATUS
San Joaquin Kit Fox <i>Vulpes macrotis mutica</i> No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/2873">https://ecos.fws.gov/ecp/species/2873</a>	Endangered

## Reptiles

NAME	STATUS
Blunt-nosed Leopard Lizard <i>Gambelia silus</i> No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/625">https://ecos.fws.gov/ecp/species/625</a>	Endangered
Giant Garter Snake <i>Thamnophis gigas</i> No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/4482">https://ecos.fws.gov/ecp/species/4482</a>	Threatened

## Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is a <b>final critical habitat</b> designated for this species. Your location is outside the designated critical habitat. <a href="https://ecos.fws.gov/ecp/species/2891">https://ecos.fws.gov/ecp/species/2891</a>	Threatened
California Tiger Salamander <i>Ambystoma californiense</i> There is a <b>final critical habitat</b> designated for this species. Your location is outside the designated critical habitat. <a href="https://ecos.fws.gov/ecp/species/2076">https://ecos.fws.gov/ecp/species/2076</a>	Threatened

## Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is a <b>final critical habitat</b> designated for this species. Your location is outside the designated critical habitat. <a href="https://ecos.fws.gov/ecp/species/321">https://ecos.fws.gov/ecp/species/321</a>	Threatened
Steelhead <i>Oncorhynchus (=Salmo) mykiss</i> There is a <b>final critical habitat</b> designated for this species. Your location overlaps the designated critical habitat. <a href="https://ecos.fws.gov/ecp/species/1007">https://ecos.fws.gov/ecp/species/1007</a>	Threatened

## Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i> There is a <b>final critical habitat</b> designated for this species. Your location is outside the designated critical habitat. <a href="https://ecos.fws.gov/ecp/species/7850">https://ecos.fws.gov/ecp/species/7850</a>	Threatened

## Crustaceans

NAME	STATUS
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Vernal Pool Fairy Shrimp *Branchinecta lynchi* Threatened  
There is a **final critical habitat** designated for this species. Your location is outside the designated critical habitat.  
<https://ecos.fws.gov/ecp/species/498>

Vernal Pool Tadpole Shrimp *Lepidurus packardii* Endangered  
There is a **final critical habitat** designated for this species. Your location is outside the designated critical habitat.  
<https://ecos.fws.gov/ecp/species/2246>

## Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

NAME	TYPE
<b>Steelhead</b> <i>Oncorhynchus</i> (=Salmo) mykiss Northern California DPS <a href="https://ecos.fws.gov/ecp/species/1007#crithab">https://ecos.fws.gov/ecp/species/1007#crithab</a>	Final designated
<b>Steelhead</b> <i>Oncorhynchus</i> (=Salmo) mykiss South-Central California Coast DPS <a href="https://ecos.fws.gov/ecp/species/1007#crithab">https://ecos.fws.gov/ecp/species/1007#crithab</a>	Final designated
<b>Steelhead</b> <i>Oncorhynchus</i> (=Salmo) mykiss Southern California DPS <a href="https://ecos.fws.gov/ecp/species/1007#crithab">https://ecos.fws.gov/ecp/species/1007#crithab</a>	Final designated
<b>Steelhead</b> <i>Oncorhynchus</i> (=Salmo) mykiss Central California Coast DPS <a href="https://ecos.fws.gov/ecp/species/1007#crithab">https://ecos.fws.gov/ecp/species/1007#crithab</a>	Final designated
<b>Steelhead</b> <i>Oncorhynchus</i> (=Salmo) mykiss California Central Valley DPS <a href="https://ecos.fws.gov/ecp/species/1007#crithab">https://ecos.fws.gov/ecp/species/1007#crithab</a>	Final designated

## Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any activity that results in the take (to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service<sup>3</sup>. There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Conservation measures for birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Year-round bird occurrence data <http://www.birdscanada.org/birdmon/default/datasummaries.jsp>

The migratory birds species listed below are species of particular conservation concern (e.g. [Birds of Conservation Concern](#)) that may be potentially affected by activities in this location. It is not a list of every bird species you may find in this location, nor a guarantee that all of the bird species on this list will be found on or near this location. Although it is important to try to avoid and minimize impacts to all birds, special

attention should be made to avoid and minimize impacts to birds of priority concern. To view available data on other bird species that may occur in your project area, please visit the [AKN Histogram Tools](#) and [Other Bird Data Resources](#). To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

NAME	SEASON(S)
Allen's Hummingbird <i>Selasphorus sasin</i> <a href="https://ecos.fws.gov/ecp/species/9637">https://ecos.fws.gov/ecp/species/9637</a>	Migrating
Bald Eagle <i>Haliaeetus leucocephalus</i> <a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a>	Year-round
Black Rail <i>Laterallus jamaicensis</i> <a href="https://ecos.fws.gov/ecp/species/7717">https://ecos.fws.gov/ecp/species/7717</a>	Breeding
Burrowing Owl <i>Athene cucularia</i> <a href="https://ecos.fws.gov/ecp/species/9737">https://ecos.fws.gov/ecp/species/9737</a>	Year-round
Calliope Hummingbird <i>Stellula calliope</i> <a href="https://ecos.fws.gov/ecp/species/9526">https://ecos.fws.gov/ecp/species/9526</a>	Migrating
Costa's Hummingbird <i>Calypte costae</i> <a href="https://ecos.fws.gov/ecp/species/9470">https://ecos.fws.gov/ecp/species/9470</a>	Year-round
Fox Sparrow <i>Passerella iliaca</i>	Wintering
Least Bittern <i>Ixobrychus exilis</i> <a href="https://ecos.fws.gov/ecp/species/6175">https://ecos.fws.gov/ecp/species/6175</a>	Breeding
Lesser Yellowlegs <i>Tringa flavipes</i> <a href="https://ecos.fws.gov/ecp/species/9679">https://ecos.fws.gov/ecp/species/9679</a>	Wintering
Lewis's Woodpecker <i>Melanerpes lewis</i> <a href="https://ecos.fws.gov/ecp/species/9408">https://ecos.fws.gov/ecp/species/9408</a>	Wintering
Loggerhead Shrike <i>Lanius ludovicianus</i> <a href="https://ecos.fws.gov/ecp/species/8833">https://ecos.fws.gov/ecp/species/8833</a>	Year-round
Long-billed Curlew <i>Numenius americanus</i> <a href="https://ecos.fws.gov/ecp/species/5511">https://ecos.fws.gov/ecp/species/5511</a>	Wintering
Marbled Godwit <i>Limosa fedoa</i> <a href="https://ecos.fws.gov/ecp/species/9481">https://ecos.fws.gov/ecp/species/9481</a>	Wintering
Mountain Plover <i>Charadrius montanus</i> <a href="https://ecos.fws.gov/ecp/species/3638">https://ecos.fws.gov/ecp/species/3638</a>	Wintering
Nuttall's Woodpecker <i>Picoides nuttallii</i> <a href="https://ecos.fws.gov/ecp/species/9410">https://ecos.fws.gov/ecp/species/9410</a>	Year-round
Oak Titmouse <i>Baeolophus inornatus</i> <a href="https://ecos.fws.gov/ecp/species/9656">https://ecos.fws.gov/ecp/species/9656</a>	Year-round
Peregrine Falcon <i>Falco peregrinus</i> <a href="https://ecos.fws.gov/ecp/species/8831">https://ecos.fws.gov/ecp/species/8831</a>	Wintering
Rufous Hummingbird <i>selasphorus rufus</i> <a href="https://ecos.fws.gov/ecp/species/8002">https://ecos.fws.gov/ecp/species/8002</a>	Migrating
Short-eared Owl <i>Asio flammeus</i> <a href="https://ecos.fws.gov/ecp/species/9295">https://ecos.fws.gov/ecp/species/9295</a>	Wintering

Swainson's Hawk <i>Buteo swainsoni</i> <a href="https://ecos.fws.gov/ecp/species/1098">https://ecos.fws.gov/ecp/species/1098</a>	Breeding
Tricolored Blackbird <i>Agelaius tricolor</i> <a href="https://ecos.fws.gov/ecp/species/3910">https://ecos.fws.gov/ecp/species/3910</a>	Year-round
Western Grebe <i>aechmophorus occidentalis</i> <a href="https://ecos.fws.gov/ecp/species/6743">https://ecos.fws.gov/ecp/species/6743</a>	Wintering
Williamson's Sapsucker <i>Sphyrapicus thyroideus</i> <a href="https://ecos.fws.gov/ecp/species/8832">https://ecos.fws.gov/ecp/species/8832</a>	Year-round
Yellow-billed Magpie <i>Pica nuttalli</i> <a href="https://ecos.fws.gov/ecp/species/9726">https://ecos.fws.gov/ecp/species/9726</a>	Year-round

#### What does IPaC use to generate the list of migratory bird species potentially occurring in my specified location?

##### Landbirds:

Migratory birds that are displayed on the IPaC species list are based on ranges in the latest edition of the National Geographic Guide, Birds of North America (6th Edition, 2011 by Jon L. Dunn, and Jonathan Alderfer). Although these ranges are coarse in nature, a number of U.S. Fish and Wildlife Service migratory bird biologists agree that these maps are some of the best range maps to date. These ranges were clipped to a specific Bird Conservation Region (BCR) or USFWS Region/Regions, if it was indicated in the 2008 list of Birds of Conservation Concern (BCC) that a species was a BCC species only in a particular Region/Regions. Additional modifications have been made to some ranges based on more local or refined range information and/or information provided by U.S. Fish and Wildlife Service biologists with species expertise. All migratory birds that show in areas on land in IPaC are those that appear in the 2008 Birds of Conservation Concern report.

##### Atlantic Seabirds:

Ranges in IPaC for birds off the Atlantic coast are derived from species distribution models developed by the National Oceanic and Atmospheric Association (NOAA) National Centers for Coastal Ocean Science (NCCOS) using the best available seabird survey data for the offshore Atlantic Coastal region to date. NOAA/NCCOS assisted USFWS in developing seasonal species ranges from their models for specific use in IPaC. Some of these birds are not BCC species but were of interest for inclusion because they may occur in high abundance off the coast at different times throughout the year, which potentially makes them more susceptible to certain types of development and activities taking place in that area. For more refined details about the abundance and richness of bird species within your project area off the Atlantic Coast, see the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other types of taxa that may be helpful in your project review.

About the NOAA/NCCOS models: the models were developed as part of the NOAA/NCCOS project: [Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#). The models resulting from this project are being used in a number of decision-support/mapping products in order to help guide decision-making on activities off the Atlantic Coast with the goal of reducing impacts to migratory birds. One such product is the [Northeast Ocean Data Portal](#), which can be used to explore details about the relative occurrence and abundance of bird species in a particular area off the Atlantic Coast.

All migratory bird range maps within IPaC are continuously being updated as new and better information becomes available.

#### Can I get additional information about the levels of occurrence in my project area of specific birds or groups of birds listed in IPaC?

##### Landbirds:

The [Avian Knowledge Network \(AKN\)](#) provides a tool currently called the "Histogram Tool", which draws from the data within the AKN (latest, survey, point count, citizen science datasets) to create a view of relative abundance of species within a particular location over the course of the year. The results of the tool depict the frequency of detection of a species in survey events, averaged between multiple datasets within AKN in a particular week of the year. You may access the histogram tools through the [Migratory Bird Programs AKN Histogram Tools](#) webpage.

The tool is currently available for 4 regions (California, Northeast U.S., Southeast U.S. and Midwest), which encompasses the following 32 states: Alabama, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, West Virginia, and Wisconsin.

In the near future, there are plans to expand this tool nationwide within the AKN, and allow the graphs produced to appear with the list of trust resources generated by IPaC, providing you with an additional level of detail about the level of occurrence of the species of particular concern potentially occurring in your project area throughout the course of the year.

##### Atlantic Seabirds:

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA/NCCOS [Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project](#) webpage.

## Facilities

## Wildlife refuges

Any activity proposed on [National Wildlife Refuge](#) lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGES AT THIS LOCATION.

## Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

## Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

### Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

### Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

### Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.



# Selected Elements by Scientific Name

## California Department of Fish and Wildlife

### California Natural Diversity Database



**Query Criteria:** Quad (Salida) OR Riverbank OR Brush Lake OR Ceres OR Manteca OR Avena OR Escalon OR Oakdale OR Waterford OR Denair OR Turlock OR Hatch OR Crows Landing OR Patterson OR Westley OR Ripon

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Candidate Endangered	G2G3	S1S2	SSC
<i>Ambystoma californiense</i> California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	WL
<i>Anniella pulchra</i> northern California legless lizard	ARACC01020	None	None	G3	S3	SSC
<i>Ardea herodias</i> great blue heron	ABNGA04010	None	None	G5	S4	
<i>Astragalus tener var. tener</i> alkali milk-vetch	PDFAB0F8R1	None	None	G2T2	S2	1B.2
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Atriplex cordulata var. cordulata</i> heartscale	PDCHE040B0	None	None	G3T2	S2	1B.2
<i>Atriplex minuscula</i> lesser saltscale	PDCHE042M0	None	None	G2	S2	1B.1
<i>Atriplex persistens</i> vernal pool smallscale	PDCHE042P0	None	None	G2	S2	1B.2
<i>Atriplex subtilis</i> subtle orache	PDCHE042T0	None	None	G1	S1	1B.2
<i>Blepharizonia plumosa</i> big tarplant	PDAST1C011	None	None	G2	S2	1B.1
<i>Bombus caliginosus</i> obscure bumble bee	IIHYM24380	None	None	G4?	S1S2	
<i>Bombus crotchii</i> Crotch bumble bee	IIHYM24480	None	None	G3G4	S1S2	
<i>Bombus occidentalis</i> western bumble bee	IIHYM24250	None	None	G2G3	S1	
<i>Branchinecta conservatio</i> Conservancy fairy shrimp	ICBRA03010	Endangered	None	G2	S2	
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
<i>Branta hutchinsii leucopareia</i> cackling (=Aleutian Canada) goose	ABNJB05035	Delisted	None	G5T3	S3	
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	



Selected Elements by Scientific Name  
California Department of Fish and Wildlife  
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b>California macrophylla</b> round-leaved filaree	PDGER01070	None	None	G3?	S3?	1B.2
<b>Caulanthus lemmonii</b> Lemmon's jewelflower	PDBRA0M0E0	None	None	G3	S3	1B.2
<b>Ceratochrysis menkei</b> Menke's cuckoo wasp	IIHYM71050	None	None	G1	S1	
<b>Clarkia rostrata</b> beaked clarkia	PDONA050Y0	None	None	G2G3	S2S3	1B.3
<b>Coastal and Valley Freshwater Marsh</b> Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	G3	S2.1	
<b>Coccyzus americanus occidentalis</b> western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
<b>Corynorhinus townsendii</b> Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC
<b>Desmocerus californicus dimorphus</b> valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	
<b>Dipodomys heermanni dixonii</b> Merced kangaroo rat	AMAFD03062	None	None	G3G4T2T3	S2S3	
<b>Egretta thula</b> snowy egret	ABNGA06030	None	None	G5	S4	
<b>Elderberry Savanna</b> Elderberry Savanna	CTT63440CA	None	None	G2	S2.1	
<b>Emys marmorata</b> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<b>Eremophila alpestris actia</b> California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL
<b>Eryngium racemosum</b> Delta button-celery	PDAP10Z0S0	None	Endangered	G1	S1	1B.1
<b>Eschscholzia rhombipetala</b> diamond-petaled California poppy	PDPAP0A0D0	None	None	G1	S1	1B.1
<b>Eumops perotis californicus</b> western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
<b>Falco columbarius</b> merlin	ABNKD06030	None	None	G5	S3S4	WL
<b>Falco mexicanus</b> prairie falcon	ABNKD06090	None	None	G5	S4	WL
<b>Great Valley Cottonwood Riparian Forest</b> Great Valley Cottonwood Riparian Forest	CTT61410CA	None	None	G2	S2.1	
<b>Great Valley Mixed Riparian Forest</b> Great Valley Mixed Riparian Forest	CTT61420CA	None	None	G2	S2.2	
<b>Great Valley Valley Oak Riparian Forest</b> Great Valley Valley Oak Riparian Forest	CTT61430CA	None	None	G1	S1.1	





Selected Elements by Scientific Name  
California Department of Fish and Wildlife  
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b><i>Icteria virens</i></b> yellow-breasted chat	ABPBX24010	None	None	G5	S3	SSC
<b><i>Lanius ludovicianus</i></b> loggerhead shrike	ABPBR01030	None	None	G4	S4	SSC
<b><i>Lasiurus blossevillii</i></b> western red bat	AMACC05060	None	None	G5	S3	SSC
<b><i>Lasiurus cinereus</i></b> hoary bat	AMACC05030	None	None	G5	S4	
<b><i>Legenere limosa</i></b> legenere	PDCAM0C010	None	None	G2	S2	1B.1
<b><i>Lepidurus packardii</i></b> vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G4	S3S4	
<b><i>Linderiella occidentalis</i></b> California linderiella	ICBRA06010	None	None	G2G3	S2S3	
<b><i>Lytta moesta</i></b> moestan blister beetle	IICOL4C020	None	None	G2	S2	
<b><i>Masticophis flagellum ruddocki</i></b> San Joaquin coachwhip	ARADB21021	None	None	G5T2T3	S2?	SSC
<b><i>Melospiza melodia</i></b> song sparrow ("Modesto" population)	ABPBXA3010	None	None	G5	S3?	SSC
<b><i>Monardella leucocephala</i></b> Merced monardella	PDLAM180C0	None	None	GH	SH	1A
<b><i>Mylopharodon conocephalus</i></b> hardhead	AFCJB25010	None	None	G3	S3	SSC
<b><i>Myotis yumanensis</i></b> Yuma myotis	AMACC01020	None	None	G5	S4	
<b><i>Neostapfia colusana</i></b> Colusa grass	PMPOA4C010	Threatened	Endangered	G1	S1	1B.1
<b><i>Neotoma fuscipes riparia</i></b> riparian (=San Joaquin Valley) woodrat	AMAFF08081	Endangered	None	G5T1Q	S1	SSC
<b>Northern Hardpan Vernal Pool</b> Northern Hardpan Vernal Pool	CTT44110CA	None	None	G3	S3.1	
<b><i>Oncorhynchus mykiss irideus</i></b> steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
<b><i>Orcuttia inaequalis</i></b> San Joaquin Valley Orcutt grass	PMPOA4G060	Threatened	Endangered	G1	S1	1B.1
<b><i>Pogonichthys macrolepidotus</i></b> Sacramento splittail	AFCJB34020	None	None	GNR	S3	SSC
<b><i>Puccinellia simplex</i></b> California alkali grass	PMPOA53110	None	None	G3	S2	1B.2
<b><i>Spea hammondi</i></b> western spadefoot	AAABF02020	None	None	G3	S3	SSC



Selected Elements by Scientific Name  
California Department of Fish and Wildlife  
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b><i>Sphenopholis obtusata</i></b> prairie wedge grass	PMPOA5T030	None	None	G5	S2	2B.2
<b><i>Sylvilagus bachmani riparius</i></b> riparian brush rabbit	AMAEB01021	Endangered	Endangered	G5T1	S1	
<b><i>Taxidea taxus</i></b> American badger	AMAJF04010	None	None	G5	S3	SSC
<b><i>Tuctoria greenei</i></b> Greene's tuctoria	PMPOA6N010	Endangered	Rare	G1	S1	1B.1
<b><i>Vireo bellii pusillus</i></b> least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	
<b><i>Vulpes macrotis mutica</i></b> San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2	S2	

Record Count: 66

## Plant List

### Inventory of Rare and Endangered Plants

21 matches found. [Click on scientific name for details](#)

#### Search Criteria

Found in Quads 3712161, 3712068, 3712058, 3712151, 3712172, 3712171, 3712078, 3712077, 3712067, 3712057, 3712047, 3712048, 3712141, 3712142 3712152 and 3712162;

[Modify Search Criteria](#)
[Export to Excel](#)
[Modify Columns](#)
[Modify Sort](#)
[Display Photos](#)

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
<a href="#">Astragalus tener var. tener</a>	alkali milk-vetch	Fabaceae	annual herb	Mar-Jun	1B.2	S2	G2T2
<a href="#">Atriplex cordulata var. cordulata</a>	heartscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S2	G3T2
<a href="#">Atriplex coronata var. coronata</a>	crownscale	Chenopodiaceae	annual herb	Mar-Oct	4.2	S3	G4T3
<a href="#">Atriplex minuscula</a>	lesser saltscale	Chenopodiaceae	annual herb	May-Oct	1B.1	S2	G2
<a href="#">Atriplex persistens</a>	vernal pool smallscale	Chenopodiaceae	annual herb	Jun, Aug, Sep, Oct	1B.2	S2	G2
<a href="#">Atriplex subtilis</a>	subtle orache	Chenopodiaceae	annual herb	Jun, Aug, Sep (Oct)	1B.2	S1	G1
<a href="#">Blepharizonia plumosa</a>	big tarplant	Asteraceae	annual herb	Jul-Oct	1B.1	S2	G2
<a href="#">California macrophylla</a>	round-leaved filaree	Geraniaceae	annual herb	Mar-May	1B.2	S3?	G3?
<a href="#">Caulanthus lemmonii</a>	Lemmon's jewelflower	Brassicaceae	annual herb	Feb-May	1B.2	S3	G3
<a href="#">Centromadia parryi ssp. rudis</a>	Parry's rough tarplant	Asteraceae	annual herb	May-Oct	4.2	S3	G3T3
<a href="#">Clarkia breweri</a>	Brewer's clarkia	Onagraceae	annual herb	Apr-Jun	4.2	S4	G4
<a href="#">Clarkia rostrata</a>	beaked clarkia	Onagraceae	annual herb	Apr-May	1B.3	S2S3	G2G3
<a href="#">Eryngium racemosum</a>	Delta button-celery	Apiaceae	annual / perennial herb	Jun-Oct	1B.1	S1	G1
<a href="#">Eschscholzia rhombipetala</a>	diamond-petaled California poppy	Papaveraceae	annual herb	Mar-Apr	1B.1	S1	G1
<a href="#">Legenere limosa</a>	legenere	Campanulaceae	annual herb	Apr-Jun	1B.1	S2	G2
<a href="#">Monardella leucocephala</a>	Merced monardella	Lamiaceae	annual herb	May-Aug	1A	SH	GH
<a href="#">Neostapfia colusana</a>	Colusa grass	Poaceae	annual herb	May-Aug	1B.1	S1	G1
<a href="#">Orcuttia inaequalis</a>	San Joaquin Valley Orcutt grass	Poaceae	annual herb	Apr-Sep	1B.1	S1	G1
<a href="#">Puccinellia simplex</a>	California alkali grass	Poaceae	annual herb	Mar-May	1B.2	S2	G3
<a href="#">Sphenopholis obtusata</a>	prairie wedge grass	Poaceae	perennial herb	Apr-Jul	2B.2	S2	G5
<a href="#">Tuctoria greenei</a>	Greene's tuctoria	Poaceae	annual herb	May-Jul (Sep)	1B.1	S1	G1

#### Suggested Citation

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# Modesto WTP (restricted access)

Stanislaus County, California, US — [Get Directions](#)

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**224** Species | 247 Checklists

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[Bar](#)

	SPECIES NAME	COUNT	DATE	BY
1	<b>Cackling Goose</b>	2	<a href="#">25 Jun 2017</a>	Harold Reeve
2	<b>Canada Goose</b>	790	<a href="#">25 Jun 2017</a>	Harold Reeve
3	<b>Wood Duck</b>	12	<a href="#">25 Jun 2017</a>	Harold Reeve
4	<b>Gadwall</b>	85	<a href="#">25 Jun 2017</a>	Harold Reeve
5	<b>American Wigeon</b>	2	<a href="#">25 Jun 2017</a>	Harold Reeve
6	<b>Mallard</b>	220	<a href="#">25 Jun 2017</a>	Harold Reeve
7	<b>Cinnamon Teal</b>	8	<a href="#">25 Jun 2017</a>	Harold Reeve
8	<b>Northern Shoveler</b>	17	<a href="#">25 Jun 2017</a>	Harold Reeve
9	<b>Green-winged Teal</b>	5	<a href="#">25 Jun 2017</a>	Harold Reeve
10	<b>Ring-necked Duck</b>	8	<a href="#">25 Jun 2017</a>	Harold Reeve
11	<b>Lesser Scaup</b>	22	<a href="#">25 Jun 2017</a>	Harold Reeve
12	<b>Bufflehead</b>	1	<a href="#">25 Jun 2017</a>	Harold Reeve

## Recent Visits

Checklists submitted within the last hour are not shown.

OBSERVER	DATE	SPECIES
Harold Reeve	<a href="#">25 Jun 2017</a>	62
Sal Salerno	<a href="#">25 Jun 2017</a>	62
Harold Reeve	<a href="#">28 May 2017</a>	58
Sal Salerno	<a href="#">28 May 2017</a>	58
Emilie Strauss	<a href="#">15 May 2017</a>	2
Harold Reeve	<a href="#">14 May 2017</a>	61
Ralph Baker	<a href="#">14 May 2017</a>	61
Juli Chamberlin	<a href="#">13 May 2017</a>	44
Bob Toleno	<a href="#">13 May 2017</a>	44
Emilie Strauss	<a href="#">26 Apr 2017</a>	55

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## Top eBirders

[BY SPECIES](#) | [BY CHECKLISTS](#)
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1	Harold Reeve	205
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	SPECIES NAME	COUNT	DATE	BY
13	<b>Common Goldeneye</b>	1	25 Jun 2017	Harold Reeve
14	<b>Ruddy Duck</b>	370	25 Jun 2017	Harold Reeve
15	<b>California Quail</b>	7	25 Jun 2017	Harold Reeve
16	<b>Pied-billed Grebe</b>	1	25 Jun 2017	Harold Reeve
17	<b>Eared Grebe</b>	45	25 Jun 2017	Harold Reeve
18	<b>Clark's Grebe</b>	1	25 Jun 2017	Harold Reeve
	Western/Clark's Grebe	1	25 Jun 2017	Harold Reeve
19	<b>Double-crested Cormorant</b>	1	25 Jun 2017	Harold Reeve
20	<b>Great Blue Heron</b>	7	25 Jun 2017	Harold Reeve
21	<b>Great Egret</b>	1	25 Jun 2017	Harold Reeve
22	<b>Snowy Egret</b>	1	25 Jun 2017	Harold Reeve
23	<b>Swainson's Hawk</b>	3	25 Jun 2017	Harold Reeve
24	<b>Red-tailed Hawk</b>	7	25 Jun 2017	Harold Reeve
25	<b>Common Gallinule</b>	1	25 Jun 2017	Harold Reeve
26	<b>American Coot</b>	48	25 Jun 2017	Harold Reeve
27	<b>Black-necked Stilt</b>	8	25 Jun 2017	Harold Reeve
28	<b>American Avocet</b>	52	25 Jun 2017	Harold Reeve
29	<b>Killdeer</b>	25	25 Jun 2017	Harold Reeve
30	<b>Least Sandpiper</b>	2	25 Jun 2017	Harold Reeve
31	<b>Wilson's Phalarope</b>	22	25 Jun 2017	Harold Reeve

2	Jim Gain	191
3	John Harris	146
4	Ralph Baker	141
5	Frances Oliver	126
6	Chris Conard	79
7	Sal Salerno	76
8	Justin Bosler	74
9	Steve Glover	70
9	Jim Rowoth	70

	SPECIES NAME	COUNT	DATE	BY
32	<b>Eurasian Collared-Dove</b>	2	<a href="#">25 Jun 2017</a>	Harold Reeve
33	<b>Mourning Dove</b>	6	<a href="#">25 Jun 2017</a>	Harold Reeve
	hummingbird sp.	1	<a href="#">25 Jun 2017</a>	Harold Reeve
34	<b>Nuttall's Woodpecker</b>	2	<a href="#">25 Jun 2017</a>	Harold Reeve
35	<b>Northern Flicker</b>	1	<a href="#">25 Jun 2017</a>	Harold Reeve
36	<b>Peregrine Falcon</b>	1	<a href="#">25 Jun 2017</a>	Harold Reeve
37	<b>Western Wood-Pewee</b>	2	<a href="#">25 Jun 2017</a>	Harold Reeve
38	<b>Black Phoebe</b>	2	<a href="#">25 Jun 2017</a>	Harold Reeve
39	<b>Ash-throated Flycatcher</b>	3	<a href="#">25 Jun 2017</a>	Harold Reeve
40	<b>Western Kingbird</b>	1	<a href="#">25 Jun 2017</a>	Harold Reeve
41	<b>California Scrub-Jay</b>	3	<a href="#">25 Jun 2017</a>	Harold Reeve
42	<b>Northern Rough-winged Swallow</b>	5	<a href="#">25 Jun 2017</a>	Harold Reeve
43	<b>Tree Swallow</b>	300	<a href="#">25 Jun 2017</a>	Harold Reeve
44	<b>Barn Swallow</b>	2	<a href="#">25 Jun 2017</a>	Harold Reeve
45	<b>Cliff Swallow</b>	470	<a href="#">25 Jun 2017</a>	Harold Reeve
46	<b>Oak Titmouse</b>	2	<a href="#">25 Jun 2017</a>	Harold Reeve
47	<b>White-breasted Nuthatch</b>	1	<a href="#">25 Jun 2017</a>	Harold Reeve
48	<b>House Wren</b>	6	<a href="#">25 Jun 2017</a>	Harold Reeve
49	<b>Marsh Wren</b>	3	<a href="#">25 Jun 2017</a>	Harold Reeve

	SPECIES NAME	COUNT	DATE	BY
50	<b>Bewick's Wren</b>	2	<a href="#">25 Jun 2017</a>	Harold Reeve
51	<b>Northern Mockingbird</b>	1	<a href="#">25 Jun 2017</a>	Harold Reeve
52	<b>European Starling</b>	10	<a href="#">25 Jun 2017</a>	Harold Reeve
53	<b>Common Yellowthroat</b>	1	<a href="#">25 Jun 2017</a>	Harold Reeve
54	<b>Song Sparrow</b>	4	<a href="#">25 Jun 2017</a>	Harold Reeve
55	<b>Spotted Towhee</b>	2	<a href="#">25 Jun 2017</a>	Harold Reeve
56	<b>Black-headed Grosbeak</b>	1	<a href="#">25 Jun 2017</a>	Harold Reeve
57	<b>Red-winged Blackbird</b>	10	<a href="#">25 Jun 2017</a>	Harold Reeve
58	<b>Brewer's Blackbird</b>	4	<a href="#">25 Jun 2017</a>	Harold Reeve
59	<b>Brown-headed Cowbird</b>	2	<a href="#">25 Jun 2017</a>	Harold Reeve
60	<b>House Finch</b>	4	<a href="#">25 Jun 2017</a>	Harold Reeve
61	<b>American Goldfinch</b>	2	<a href="#">25 Jun 2017</a>	Harold Reeve
62	<b>House Sparrow</b>	2	<a href="#">25 Jun 2017</a>	Harold Reeve
63	<b>Northern Pintail</b>	1	<a href="#">28 May 2017</a>	Harold Reeve
64	<b>Western Grebe</b>	9	<a href="#">28 May 2017</a>	Harold Reeve
65	<b>White-faced Ibis</b>	19	<a href="#">28 May 2017</a>	Harold Reeve
66	<b>Turkey Vulture</b>	2	<a href="#">28 May 2017</a>	Harold Reeve
67	<b>Spotted Sandpiper</b>	1	<a href="#">28 May 2017</a>	Harold Reeve
68	<b>California Gull</b>	75	<a href="#">28 May 2017</a>	Harold Reeve



	SPECIES NAME	COUNT	DATE	BY
69	<b>Black Tern</b>	4	28 May 2017	Harold Reeve
70	<b>American Crow</b>	1	28 May 2017	Harold Reeve
71	<b>Violet-green Swallow</b>	6	28 May 2017	Harold Reeve
72	<b>Bushtit</b>	2	28 May 2017	Harold Reeve
73	<b>California Towhee</b>	1	28 May 2017	Harold Reeve
74	<b>Western Tanager</b>	3	28 May 2017	Harold Reeve
75	<b>Great-tailed Grackle</b>	2	28 May 2017	Harold Reeve
76	<b>Bullock's Oriole</b>	3	28 May 2017	Harold Reeve
77	<b>Say's Phoebe</b>	1	15 May 2017	Emilie Strauss
78	<b>Redhead</b>	2	14 May 2017	Harold Reeve
79	<b>Black-bellied Plover</b>	35	14 May 2017	Harold Reeve
80	<b>Western Sandpiper</b>	2	14 May 2017	Harold Reeve
81	<b>Downy Woodpecker</b>	1	14 May 2017	Harold Reeve
82	<b>California Thrasher</b>	1	14 May 2017	Harold Reeve
83	<b>Cedar Waxwing</b>	7	14 May 2017	Harold Reeve
84	<b>Yellow Warbler</b>	2	14 May 2017	Harold Reeve
85	<b>Wilson's Warbler</b>	1	14 May 2017	Harold Reeve
86	<b>Lesser Goldfinch</b>	2	14 May 2017	Harold Reeve
87	<b>Lawrence's Goldfinch</b>	3	14 May 2017	Harold Reeve

	SPECIES NAME	COUNT	DATE	BY
88	<b>Greater Scaup</b>	2	<a href="#">13 May 2017</a>	Juli Chamberlin
89	<b>Golden Eagle</b>	1	<a href="#">13 May 2017</a>	Juli Chamberlin
90	<b>Canvasback</b>	3	<a href="#">23 Apr 2017</a>	Harold Reeve
91	<b>Common Loon</b>	1	<a href="#">23 Apr 2017</a>	Harold Reeve
92	<b>Red-shouldered Hawk</b>	1	<a href="#">23 Apr 2017</a>	Harold Reeve
93	<b>Sanderling</b>	1	<a href="#">23 Apr 2017</a>	Harold Reeve
94	<b>Dunlin</b>	46	<a href="#">23 Apr 2017</a>	Harold Reeve
95	<b>Long-billed Dowitcher</b>	5	<a href="#">23 Apr 2017</a>	Harold Reeve
96	<b>Greater Yellowlegs</b>	5	<a href="#">23 Apr 2017</a>	Harold Reeve
97	<b>Bonaparte's Gull</b>	4	<a href="#">23 Apr 2017</a>	Harold Reeve
98	<b>Caspian Tern</b>	1	<a href="#">23 Apr 2017</a>	Harold Reeve
99	<b>Belted Kingfisher</b>	1	<a href="#">23 Apr 2017</a>	Harold Reeve
100	<b>American Robin</b>	2	<a href="#">23 Apr 2017</a>	Harold Reeve
101	<b>American Pipit</b>	1	<a href="#">23 Apr 2017</a>	Harold Reeve
102	<b>White-crowned Sparrow</b>	2	<a href="#">23 Apr 2017</a>	Harold Reeve
103	<b>White-throated Sparrow</b>	1	<a href="#">23 Apr 2017</a>	Harold Reeve
104	<b>Savannah Sparrow</b>	2	<a href="#">23 Apr 2017</a>	Harold Reeve
105	<b>Lincoln's Sparrow</b>	2	<a href="#">23 Apr 2017</a>	Harold Reeve
106	<b>Blue Grosbeak</b>	2	<a href="#">23 Apr 2017</a>	Harold Reeve

	SPECIES NAME	COUNT	DATE	BY
107	<b>Northern Harrier</b>	1	<a href="#">17 Apr 2017</a>	Emilie Strauss
108	<b>Rock Pigeon</b>	10	<a href="#">17 Apr 2017</a>	Emilie Strauss
109	<b>Barn Owl</b>	1	<a href="#">17 Apr 2017</a>	Emilie Strauss
110	<b>Great Horned Owl</b>	1	<a href="#">17 Apr 2017</a>	Emilie Strauss
111	<b>American Kestrel</b>	4	<a href="#">17 Apr 2017</a>	Emilie Strauss
112	<b>Common Raven</b>	1	<a href="#">17 Apr 2017</a>	Emilie Strauss
113	<b>Snow Goose</b>	900	<a href="#">26 Mar 2017</a>	Harold Reeve
	Common/Red-breasted Merganser	1	<a href="#">26 Mar 2017</a>	Harold Reeve
114	<b>Cattle Egret</b>	33	<a href="#">26 Mar 2017</a>	Harold Reeve
115	<b>Green Heron</b>	1	<a href="#">26 Mar 2017</a>	Harold Reeve
116	<b>Cooper's Hawk</b>	2	<a href="#">26 Mar 2017</a>	Ralph Baker
117	<b>Sora</b>	1	<a href="#">26 Mar 2017</a>	Harold Reeve
118	<b>Long-billed Curlew</b>	6	<a href="#">26 Mar 2017</a>	Harold Reeve
119	<b>Ring-billed Gull</b>	1	<a href="#">26 Mar 2017</a>	Harold Reeve
120	<b>Merlin</b>	1	<a href="#">26 Mar 2017</a>	Harold Reeve
121	<b>Ruby-crowned Kinglet</b>	3	<a href="#">26 Mar 2017</a>	Harold Reeve
122	<b>Western Bluebird</b>	2	<a href="#">26 Mar 2017</a>	Ralph Baker
123	<b>Orange-crowned Warbler</b>	1	<a href="#">26 Mar 2017</a>	Harold Reeve
124	<b>Yellow-rumped Warbler</b>	5	<a href="#">26 Mar 2017</a>	Harold Reeve

	SPECIES NAME	COUNT	DATE	BY
125	<b>Fox Sparrow</b>	3	<a href="#">26 Mar 2017</a>	Harold Reeve
126	<b>Golden-crowned Sparrow</b>	4	<a href="#">26 Mar 2017</a>	Harold Reeve
127	<b>Ross's Goose</b>	1	<a href="#">12 Mar 2017</a>	Harold Reeve
	Snow/Ross's Goose	400	<a href="#">12 Mar 2017</a>	Harold Reeve
128	<b>Herring Gull</b>	7	<a href="#">12 Mar 2017</a>	Harold Reeve
	gull sp.	40	<a href="#">12 Mar 2017</a>	Harold Reeve
129	<b>Greater White-fronted Goose</b>	3	<a href="#">12 Feb 2017</a>	Harold Reeve
130	<b>Virginia Rail</b>	1	<a href="#">12 Feb 2017</a>	Harold Reeve
131	<b>Sandhill Crane</b>	15	<a href="#">12 Feb 2017</a>	Harold Reeve
132	<b>Thayer's Gull</b>	2	<a href="#">12 Feb 2017</a>	Harold Reeve
133	<b>Glaucous-winged Gull</b>	2	<a href="#">12 Feb 2017</a>	Harold Reeve
134	<b>Glaucous Gull</b>	1	<a href="#">12 Feb 2017</a>	Harold Reeve
135	<b>Loggerhead Shrike</b>	1	<a href="#">12 Feb 2017</a>	Harold Reeve
136	<b>Barrow's Goldeneye</b>	1	<a href="#">11 Feb 2017</a>	Jim Gain
137	<b>Wilson's Snipe</b>	1	<a href="#">11 Feb 2017</a>	Jim Gain
138	<b>Yellow-billed Magpie</b>	12	<a href="#">11 Feb 2017</a>	Jim Gain
139	<b>Western Meadowlark</b>	1	<a href="#">28 Jan 2017</a>	Christian Walker
140	<b>Dark-eyed Junco</b>	20	<a href="#">8 Jan 2017</a>	Harold Reeve
141	<b>Bald Eagle</b>	1	<a href="#">2 Jan 2017</a>	Jim Gain
142	<b>Pacific Golden-Plover</b>	1	<a href="#">2 Jan 2017</a>	Jim Gain

	SPECIES NAME	COUNT	DATE	BY
143	<b>Phainopepla</b>	2	2 Jan 2017	Jim Gain
144	<b>Purple Finch</b>	1	11 Dec 2016	Harold Reeve
145	<b>Surf Scoter</b>	1	13 Nov 2016	Harold Reeve
146	<b>Hooded Merganser</b>	2	13 Nov 2016	Harold Reeve
147	<b>American White Pelican</b>	26	13 Nov 2016	Harold Reeve
148	<b>Sharp-shinned Hawk</b>	1	13 Nov 2016	Harold Reeve
	Accipiter sp.	1	13 Nov 2016	Harold Reeve
149	<b>Pectoral Sandpiper</b>	1	13 Nov 2016	Harold Reeve
150	<b>Anna's Hummingbird</b>	1	13 Nov 2016	Harold Reeve
151	<b>Hermit Thrush</b>	1	13 Nov 2016	Harold Reeve
152	<b>Tricolored Blackbird</b>	25	13 Nov 2016	Harold Reeve
153	<b>Blue-winged Teal</b>	1	23 Oct 2016	Harold Reeve
	teal sp.	3	23 Oct 2016	Harold Reeve
154	<b>Black-crowned Night-Heron</b>	1	23 Oct 2016	Harold Reeve
155	<b>Black-throated Gray Warbler</b>	1	23 Oct 2016	Harold Reeve
	Blue- winged/Cinnamon Teal	5	11 Sep 2016	Harold Reeve
156	<b>Semipalmated Plover</b>	3	11 Sep 2016	Harold Reeve
157	<b>Red-necked Phalarope</b>	8	11 Sep 2016	Harold Reeve
158	<b>Lesser Yellowlegs</b>	1	11 Sep 2016	Harold Reeve

	SPECIES NAME	COUNT	DATE	BY
159	<b>Bank Swallow</b>	2	11 Sep 2016	Harold Reeve
	swallow sp.	2	11 Sep 2016	Harold Reeve
160	<b>Whimbrel</b>	1	10 Jul 2016	Harold Reeve
161	<b>Marbled Godwit</b>	1	10 Jul 2016	Harold Reeve
	Short-billed/Long-billed Dowitcher	1	10 Jul 2016	Harold Reeve
	peep sp.	40	9 Jul 2016	Jim Gain
162	<b>Forster's Tern</b>	1	26 Jun 2016	Jim Gain
163	<b>Warbling Vireo</b>	2	14 May 2016	Jim Gain
164	<b>Common Merganser</b>	1	8 May 2016	Harold Reeve
165	<b>Snowy Plover</b>	3	8 May 2016	Harold Reeve
166	<b>Townsend's Warbler</b>	1	8 May 2016	Harold Reeve
167	<b>Chipping Sparrow</b>	1	24 Apr 2016	Harold Reeve
168	<b>Horned Lark</b>	1	13 Feb 2016	Frances Oliver
169	<b>Tundra Swan</b>	3	13 Feb 2016	John Harris
	Western x Glaucous-winged Gull (hybrid)	1	24 Jan 2016	Harold Reeve
170	<b>White-throated Swift</b>	10	24 Jan 2016	Harold Reeve
171	<b>Horned Grebe</b>	1	10 Jan 2016	Harold Reeve
172	<b>Lark Sparrow</b>	1	10 Jan 2016	Harold Reeve
	Herring x Glaucous-winged Gull (hybrid)	2	3 Jan 2016	Jim Gain
173	<b>Acorn Woodpecker</b>	1	3 Jan 2016	Jim Gain

	SPECIES NAME	COUNT	DATE	BY
174	<b>Mew Gull</b>	1	<a href="#">27 Dec 2015</a>	Harold Reeve
175	<b>Black-headed Gull</b>	1	<a href="#">13 Dec 2015</a>	Jim Gain
176	<b>Franklin's Gull</b>	1	<a href="#">11 Oct 2015</a>	Harold Reeve
177	<b>Osprey</b>	1	<a href="#">13 Sep 2015</a>	Harold Reeve
178	<b>Willow Flycatcher</b>	1	<a href="#">13 Sep 2015</a>	Harold Reeve
179	<b>Baird's Sandpiper</b>	1	<a href="#">12 Sep 2015</a>	Jim Gain
	duck sp.	500	<a href="#">23 Aug 2015</a>	Harold Reeve
180	<b>Wrentit</b>	1	<a href="#">23 Aug 2015</a>	Harold Reeve
181	<b>Semipalmated Sandpiper</b>	1	<a href="#">9 Aug 2015</a>	Harold Reeve
182	<b>Willet</b>	1	<a href="#">9 Aug 2015</a>	Harold Reeve
183	<b>Black-chinned Hummingbird</b>	1	<a href="#">9 Aug 2015</a>	Harold Reeve
184	<b>Yellow-headed Blackbird</b>	1	<a href="#">9 Aug 2015</a>	Harold Reeve
185	<b>Western Screech- Owl</b>	2	<a href="#">8 Aug 2015</a>	Jim Gain
186	<b>Pacific-slope Flycatcher</b>	2	<a href="#">8 Aug 2015</a>	Jim Gain
187	<b>Lazuli Bunting</b>	1	<a href="#">13 Jun 2015</a>	Jim Gain
188	<b>Rufous Hummingbird</b>	1	<a href="#">10 May 2015</a>	Harold Reeve
189	<b>Swainson's Thrush</b>	1	<a href="#">10 May 2015</a>	Harold Reeve
	Cinnamon Teal x Northern Shoveler (hybrid)	1	<a href="#">8 Mar 2015</a>	Harold Reeve
190	<b>Varied Thrush</b>	1	<a href="#">8 Mar 2015</a>	Harold Reeve

	SPECIES NAME	COUNT	DATE	BY
191	<b>Eurasian Wigeon</b>	1	11 Jan 2015	Harold Reeve
192	<b>Tufted Duck</b>	1	4 Jan 2015	Jim Gain
193	<b>Ring-necked Pheasant</b>	1	4 Jan 2015	Jim Gain
194	<b>Blue-gray Gnatcatcher</b>	1	4 Jan 2015	Jim Gain
	dabbling duck sp.	60	10 Aug 2014	Harold Reeve
195	<b>White-tailed Kite</b>	1	8 Jun 2014	Harold Reeve
196	<b>Western Gull</b>	1	23 Mar 2014	Harold Reeve
197	<b>Prairie Falcon</b>	1	23 Feb 2014	Harold Reeve
198	<b>American Bittern</b>	1	9 Feb 2014	Harold Reeve
199	<b>Little Gull</b>	1	9 Feb 2014	Jim Gain
200	<b>Ferruginous Hawk</b>	1	5 Jan 2014	Jim Gain
201	<b>Red-breasted Merganser</b>	2	27 Oct 2013	Harold Reeve
202	<b>Northern Waterthrush</b>	1	27 Oct 2013	Harold Reeve
203	<b>Sabine's Gull</b>	1	22 Sep 2013	Harold Reeve
204	<b>Wild Turkey</b>	1	13 Jul 2013	Jim Gain
	blackbird sp.	150	9 Jun 2013	Harold Reeve
205	<b>Rough-legged Hawk</b>	1	13 Jan 2013	Harold Reeve
206	<b>Red-breasted Nuthatch</b>	1	14 Oct 2012	Harold Reeve
	American/Pacific Golden-Plover (Lesser Golden- Plover)	1	23 Sep 2012	Ralph Baker



	SPECIES NAME	COUNT	DATE	BY
207	<b>Red-breasted Sapsucker</b>	1	<a href="#">8 Sep 2012</a>	Jim Gain
208	<b>Short-billed Dowitcher</b>	1	<a href="#">26 Aug 2012</a>	Harold Reeve
209	<b>Yellow-breasted Chat</b>	1	<a href="#">13 Jun 2012</a>	Cory Gregory
210	<b>Ruddy Turnstone</b>	1	<a href="#">10 Jun 2012</a>	Harold Reeve
	Greater/Lesser Scaup	1	<a href="#">12 May 2012</a>	Justin Bosler
211	<b>Rock Wren</b>	1	<a href="#">22 Jan 2012</a>	Harold Reeve
212	<b>American Golden-Plover</b>	1	<a href="#">9 Oct 2011</a>	Harold Reeve
213	<b>Common Tern</b>	1	<a href="#">11 Sep 2011</a>	John Harris
214	<b>Parasitic Jaeger</b>	1	<a href="#">26 Sep 2010</a>	Jim Gain
215	<b>Red Knot</b>	1	<a href="#">26 Sep 2009</a>	Jim Gain
216	<b>Solitary Sandpiper</b>	1	<a href="#">23 Aug 2009</a>	Harold Reeve
217	<b>Arctic Tern</b>	1	<a href="#">17 Sep 2006</a>	Jim Gain
218	<b>Black Turnstone</b>	1	<a href="#">15 Sep 2005</a>	Jim Gain
219	<b>Long-tailed Duck</b>	2	<a href="#">17 Dec 2000</a>	Jim Gain
220	<b>Red Phalarope</b>	2	<a href="#">29 Nov 1997</a>	Jim Gain
221	<b>Brant</b>	X	<a href="#">12 Jan 1991</a>	Jim Gain
222	<b>Swamp Sparrow</b>	X	<a href="#">1 Dec 1988</a>	Jim Gain
223	<b>Long-tailed Jaeger</b>	X	<a href="#">1 Aug 1987</a>	Jim Gain
224	<b>Wandering Tattler</b>	1	<a href="#">8 Sep 1986</a>	Jim Gain



Appendix D

**Cultural Resources Technical Information**



*Technical Report—Draft*

**CULTURAL RESOURCES ASSESSMENT REPORT**  
**City of Modesto River Trunk Realignment Project**  
**Stanislaus County, California**

**September 2017**

*Prepared for:*

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*Prepared by:*



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## Limitations

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This report contains confidential cultural resources location information; report distribution should be restricted to those with a need to know. Cultural resources are non-renewable, and their scientific, cultural, and aesthetic values can be significantly impaired by disturbance. To deter vandalism, artifact hunting, and other activities that can damage cultural resources, the locations of cultural resources should be kept confidential. The legal authority to restrict cultural resources information is in California Government Code 6254.1 and the National Historic Preservation Act of 1966, as amended, Section 304.

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## Attachments

- Attachment 1: Native American Correspondence
- Attachment 2: CHRIS Information Center Results

## List of Acronyms

APE	area of potential effects
CCIC	Central California Information Center
CCR	California Code of Regulations
CCTS	Central California Taxonomic System
CEQA	California Environmental Quality Act
City	City of Modesto
CRHR	California Register of Historical Resources
CFR	Code of Federal Regulations
Horizon	Horizon Water and Environment, LLC
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
PRC	Public Resources Code
Program	Wastewater Master Plan
project	River Trunk Realignment Project
TCR	Tribal Cultural Resource
USC	United States Code
USGS	United State Geological Survey

## Executive Summary

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The City of Modesto (City) is proposing a revised Wastewater Master Plan (Program) that contains a number of project-level and program-level components. This cultural resources assessment report addressed the project-level aspects of this Program called the *River Trunk Realignment Project* (project) as they pertained to the potential to impact or adversely affect archaeological resources. The City retained Horizon Water and Environment, LLC (Horizon) to complete the cultural resources assessment in support of the project.

This report documents cultural resources inventory methods and results as required for compliance with federal and California regulations. The study consisted of a literature review to identify previously recorded cultural resources that could be affected by the proposed project and a field survey to locate archaeological sites that may exist but have not yet been recorded.

No archaeological resources were identified during the course of the field survey, nor will any previously identified cultural resources be impacted by the proposed project. As a result, the project will not have an impact on significant cultural resources.

This report has been prepared based on certain key assumptions made by Horizon that substantially affect its conclusions and recommendations. These assumptions are that the information gathered during the records search is up to date and accurate, and that the field survey results accurately identified the presence or absence of archaeological resources visible on the ground surface. These assumptions, although thought to be reasonable and appropriate, may not prove to be true in the future. Horizon's conclusions and recommendations are conditioned upon these assumptions.

The archaeological inventory was performed based upon information obtained at the Central California Information Center (CCIC) of the California Historical Resources Information System and direct observation of site conditions and other information that is generally applicable as of August 2017. The conclusions and recommendations herein are therefore based on information available up to that point in time. Further information may come to light in the future that could substantially change the conclusions found herein.

Information obtained from these sources in this timeframe is assumed to be correct and complete. Horizon does not assume any liability for findings or lack of findings based upon misrepresentation of information presented to Horizon or for items that are not visible, made visible, accessible, or present at the time of the project area inventory.

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# 1 Introduction

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## 1.1 Location and Setting

The Modesto is located in Stanislaus County, California, in the central San Joaquin Valley. The city is centrally located within California, approximately 70 miles southeast of Sacramento, 85 miles east of San Francisco, 90 miles northwest of Fresno, and 35 miles west of the foothills of the Sierra Nevada range (**Figure 1**). The Tuolumne River flows westerly through the southern portion of the city. Dry Creek, a tributary to the Tuolumne River, runs through the central portion of the city before draining into the Tuolumne River near South 9th Street and River Road. The proposed project is located in the south-central portion of the city, which is depicted on the Salida, Riverbank, Brush Land, and Ceres 7.5' USGS topographic quadrangles, in Sections 5 6, 32, and 33, Township 3-4 South, Range 9 East (**Figure 2**).

## 1.2 Project Description and Area of Potential Effects

The River Trunk Realignment Project, includes the following component elements:

- **Dry Creek Crossing and Pipeline to River Trunk Pump Station**

A new 48-inch siphon would be installed to replace the existing Dry Creek crossing. This pipeline would begin at the parking lot located at the Gallo property, cross beneath Dry Creek, traverse vacant land between the creek and 9th Street, and terminate at the proposed River Trunk Pump Station. Trenchless pipeline construction methods would be employed, whereby insertion pits would be established at the Gallo property, to the west of Dry Creek, on either side of 9th Street, and at the River Trunk Pump Station site.

- **River Trunk Pump Station**

The River Trunk Pump Station would be constructed at the corner of B Street and Beard Street. The facility would have five centrifugal submersible pumps (four on duty and one standby pump).

- **River Trunk Force Main**

Two force mains would be constructed to convey flows from the River Trunk Pump Station to a discharge structure in Tuolumne Boulevard. One force main would be 30 inches in diameter and the second would be 42 inches in diameter.

- **Gravity Pipelines along Tuolumne Boulevard, Colorado Avenue, Neece Drive, and Pelton Avenue**

This pipeline would be 42 inches in diameter along Tuolumne Boulevard. Along Colorado Avenue, the pipeline would range in size between 48 inches, 54 inches, and 60 inches diameter down to the Sutter Plant.

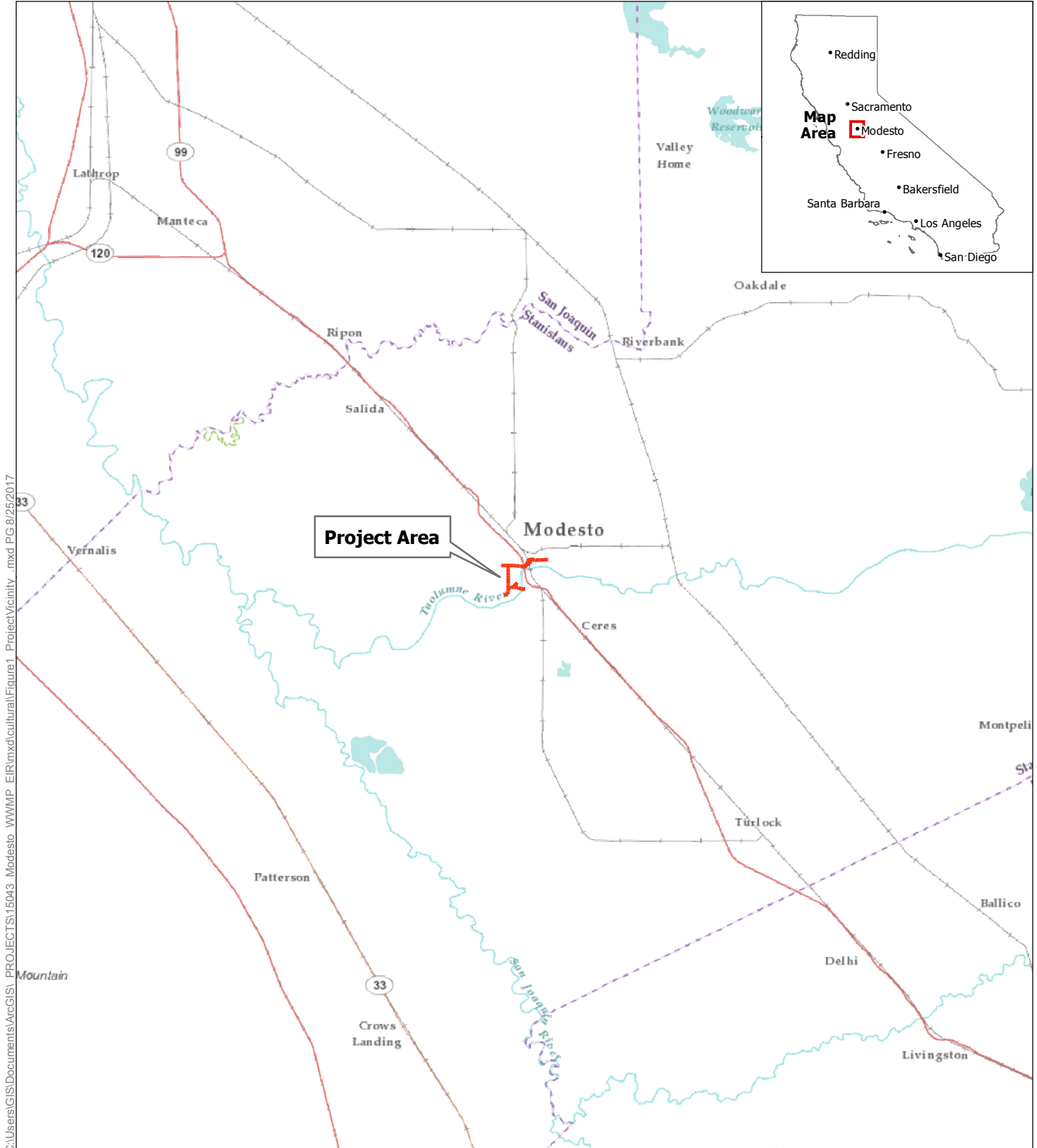
- **Shackelford Pump Station and Force Main**

The pump station would consist of a rectangular wet well (approximately 24 feet deep) and would operate with two duty pumps and one standby pump.

### ***Area of Potential Effects***

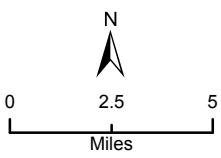
The area of potential effects (APE) is limited to the area of proposed ground disturbance and any property, or any portion thereof, that would be physically altered or destroyed by the proposed project (undertaking) (see Figure 2). For example, construction activities associated with the linear pipeline alignments—described above—that would include both trenching and jack-and-bore methods. The depth and width of the trenches would vary depending upon the size of the pipe and take into consideration the presence of other existing utility lines. For the new effluent outfall pipeline, the width of the trench would be approximately 8 feet wide and approximately 11 feet deep. Where new or replacement sewer pipelines and outfall pipelines would cross creeks (e.g., Dry Creek and Tuolumne River), or where open trench methods would be problematic due to the presence of underground utilities, railroad crossings, or other right-of-way issues, the City would use trenchless methods. In these instances, only the bore pits would be included in the APE (as shown in **Figure 3**).

In the case of the proposed pump stations, the footprint of the pump station is included in the APE, as well as any surrounding staging areas or grounds associated with the pump station. An access road between Crows Landing Road and Shackelford Pump Station is also in the APE.



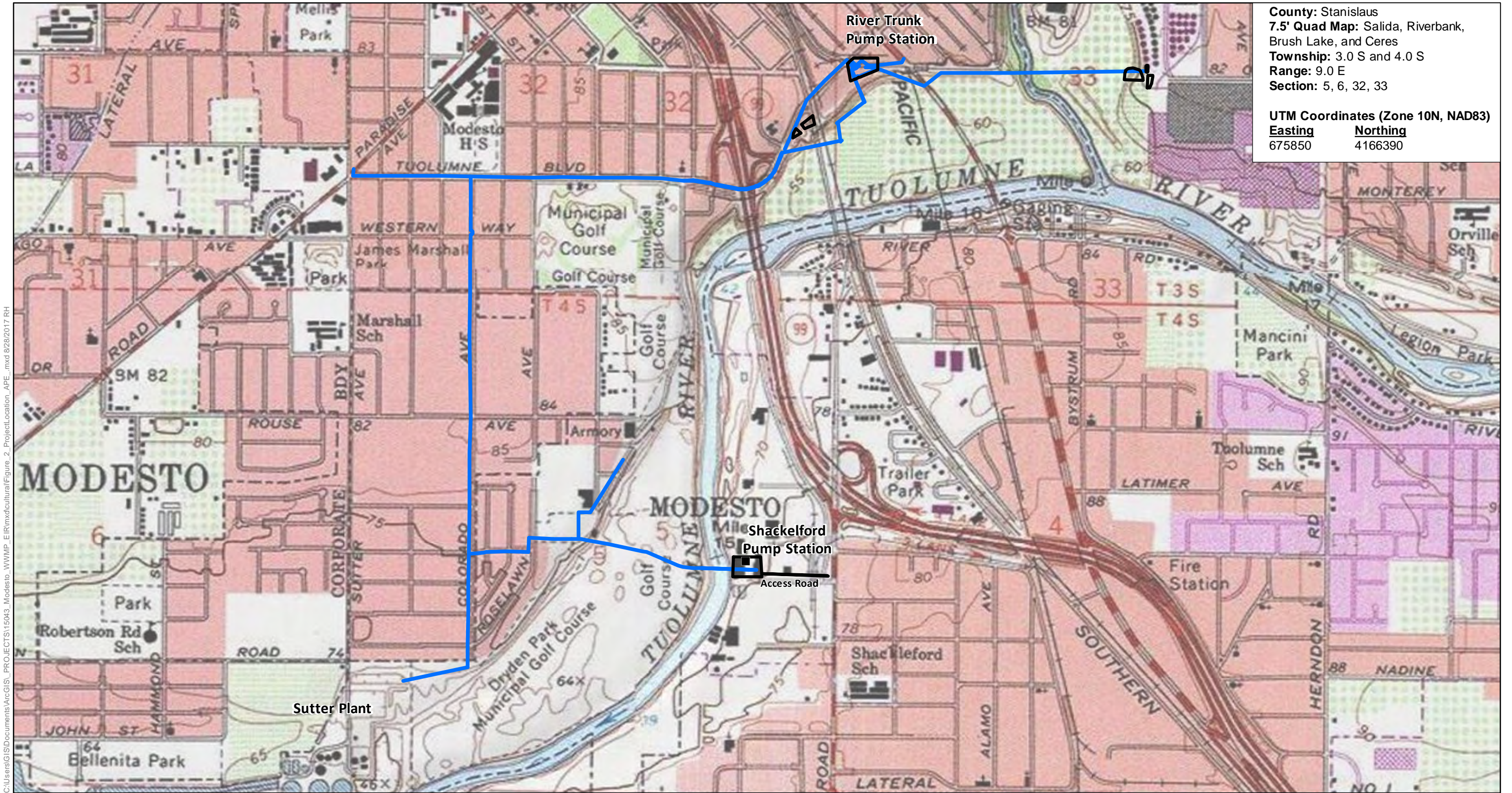
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**Figure 1**  
**Project Vicinity**



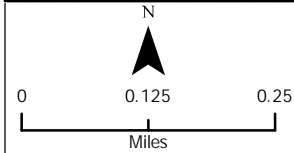






**County:** Stanislaus  
**7.5' Quad Map:** Salida, Riverbank, Brush Lake, and Ceres  
**Township:** 3.0 S and 4.0 S  
**Range:** 9.0 E  
**Section:** 5, 6, 32, 33  
  
**UTM Coordinates (Zone 10N, NAD83)**  
**Easting**      **Northing**  
 675850          4166390

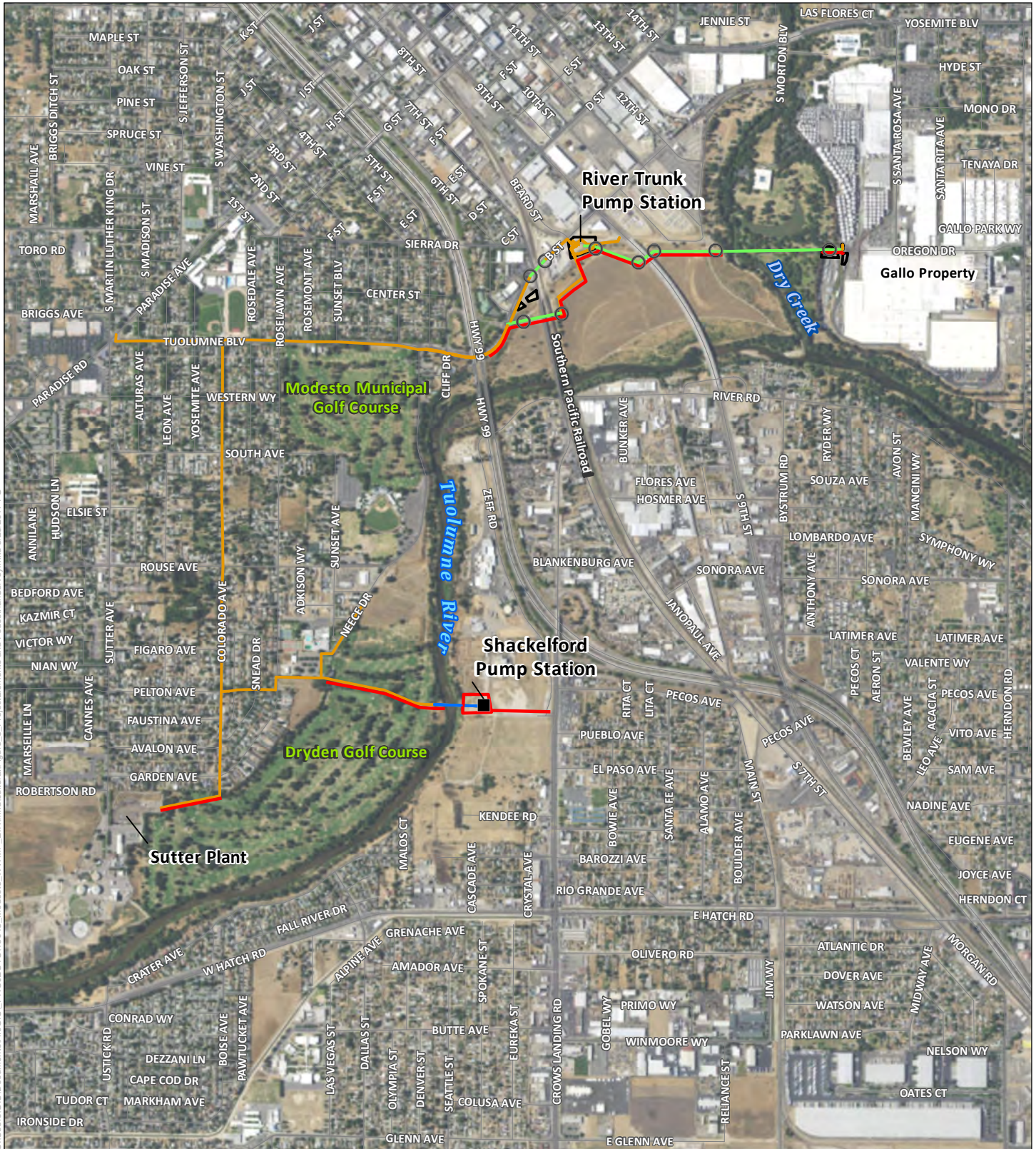
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- Area of Potential Effects
- Work Areas
- Project Alignments

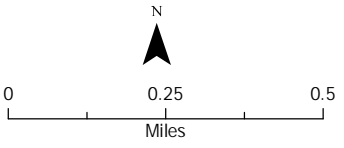
**Figure 2**  
**Project Location and Area of Potential Effects**





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BaseMap Sources: Source: Esri, DigitalGlobe, GeoEye, Earthstar



- | Pipeline Construction Type  |                   |
|---|-------------------|
| <span style="color: orange;">—</span>   | Open Cut          |
| <span style="color: green;">—</span>  | Trenchless        |
| <span style="color: blue;">—</span>   | Existing Pipe     |
| <span style="color: red;">—</span>  | Pedestrian Survey |
| <span style="border: 1px solid black; border-radius: 50%; padding: 2px;"> </span> | Trenchless Pits   |
| <span style="border: 1px solid black; padding: 2px;"> </span>                     | Work Areas        |

**Figure 3**  
**Project Elements and**  
**Pedestrian Survey**





## 1.3 Regulatory Setting and Need for Study

### 1.3.1 State of California Regulations

#### *CEQA and State CEQA Guidelines*

The proposed project must comply with California Environmental Quality Act (CEQA) (Public Resources Code [PRC] 21000 et seq. and the CEQA Guidelines (California Code of Regulations [CCR], Title 14, Chapter 3), which determine, in part, whether the project has a significant effect on a unique archaeological resource (per PRC 21083.2) or a historical resource (per PRC 21084.1).

CEQA Guidelines CCR 15064.5 notes that “a project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment.” Lead agencies are required to identify potentially feasible measures or alternatives to avoid or mitigate significant adverse changes in the significance of a historical resource before they approve such projects. According to the CEQA guidelines, historical resources are:

- Listed in, or determined to be eligible for listing in, the California Register of Historical Resources (CRHR) (per PRC 5024.1(e));
- Included in a local register of historical resources (per PRC 5020.1(k)) or identified as significant in a historical resource survey meeting the requirements of PRC 5024.1(g);
- Determined by a lead state agency to be historically significant; or

Unique archaeological resources as defined in PRC 21084.1.

Assembly Bill 52, which went into effect on July 1, 2015, requires, per PRC 21080.3.1, that CEQA lead agencies consult with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of a proposed project, if so requested by the tribe, and the agency intends to release a negative declaration, mitigated negative declaration, or environmental impact report for a project. The bill also specifies, under PRC 21084.2, that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource (TCR) is a project that may have a significant effect on the environment. This latter language was added to the CEQA checklist in 2016. The City, as the project’s CEQA lead agency, will consult with Native American tribes pursuant to PRC 21080.3.1.

Defined in Section 21074(a) of the PRC, TCRs are:

- (1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
  - a. Included or determined to be eligible for inclusion in the CRHR; or
  - b. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

- (2) 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

In addition to Section 21074(a), above, TCRs are further defined under Section 21074(b) and (c) as follows:

- (b) A cultural landscape that meets the criteria of subdivision (a) is a TCR to the extent that the landscape is geographically defined in terms of the size and scope of the landscape; and
- (c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a “nonunique archaeological resource” as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms to the criteria of subdivision (a).

Mitigation measures for TCRs must be developed in consultation with the affected California Native American tribe pursuant to the newly chaptered Section 21080.3.2, or according to Section 21084.3. Section 21084.3 identifies mitigation measures that include avoidance and preservation of TCRs and treating TCRs with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource.

### ***California Register of Historical Resources***

PRC Section 5024.1 establishes the CRHR. The register lists all California properties considered to be significant historical resources. The CRHR includes all properties listed as or determined to be eligible for listing in the National Register of Historic Places (NRHP), including properties evaluated under Section 106 of the National Historic Preservation Act (NHPA). The criteria for listing are similar to those of the NRHP. Criteria for listing in the CRHR include resources that:

- 1) Are associated with the events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- 2) Are associated with the lives of persons important in our past;
- 3) Embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values; or
- 4) Have yielded, or may be likely to yield, information important in prehistory or history.

The regulations set forth the criteria for eligibility as well as guidelines for assessing historical integrity and resources that have special considerations.

### **1.3.2 Federal Regulations**

Construction of the proposed project by the City will require a Clean Water Act Section 402 permit from the Central Valley Regional Water Quality Control Board. As a result, the project constitutes a federal undertaking as defined by Title 54 United States Code (USC) Section 300101 of the NHPA and mandates compliance with 54 USC Section 306108, commonly known as Section 106 of the NHPA

and its implementing regulations found under Title 36 of the Code of Federal Regulations (CFR) Section 800, as amended in 2001. To comply with Section 106 of the NHPA, the project proponent must “take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register.”

The implementing regulations of the NHPA require that cultural resources be evaluated for NRHP eligibility if they cannot be avoided by an undertaking (proposed project). To determine site significance through application of NRHP criteria, several levels of potential significance that reflect different (although not necessarily mutually exclusive) values must be considered. As provided in Title 36 CFR Section 60.4, “the quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association” must be considered within its historic context. Resources must also be at least 50 years old, except in rare cases, and, to meet eligibility criteria of the NRHP, must:

- (A) Be associated with events that have made a significant contribution to the broad patterns of our history; or
- (B) Be associated with the lives of persons significant in our past; or
- (C) Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (D) Have yielded, or may be likely to yield, information important in prehistory or history.

For archaeological sites evaluated under Criterion D, integrity requires that the site remain sufficiently intact to convey the expected information to address specific important research questions.

Cultural resources also may be considered separately under the National Environmental Protection Act per Title 42 USC Sections 4321 through 4327. These sections require federal agencies to consider potential environmental impacts and appropriate mitigation measures for projects with federal involvement.

## 1.4 Personnel

Field work, analysis, and reporting were carried out by the below-listed professionals who meet the U.S. Secretary of the Interior’s Standards and Guidelines for Archaeology and Historic Preservation (Per Title 48 of the CFR, Section 44716, as amended in 1983). Procedures complied with NHPA Section 106 as set forth in Title 36 of the CFR, Section 800.

- Dean Martorana, RPA (Horizon), holds a master’s degree in anthropology from California State University, Long Beach. He served as the lead archaeologist on the project. Mr. Martorana has 15 years of experience in both historic and prehistoric archaeology, including 10 years of experience in cultural resources management in northern California.
- Eric Durksen received a B.A. in 2017 from California State University, Sacramento in Anthropology with a specialization in Archaeology. He has 7 years of experience as a field

technician and field crew member on a number of archaeological projects throughout California and Oregon.



## 2 Project Context

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### 2.1 Environmental Setting

The proposed project is located near the east side of the northern San Joaquin Valley. The area is generally flat and has an elevation of approximately 100 feet above mean sea level. Stanislaus County, as well as the larger San Joaquin Valley, was formerly dominated by riparian woodland, oak savannah, wetlands, saltbush, and perennial grassland communities that harbored an abundance of wildlife and plant species. The project area would have reflected this type of ecological setting prehistorically, especially given the proximity to the Tuolumne River. Presently, the area is dominated by urban and agricultural development; some remnant habitats exist along the Tuolumne River in protected flood plains.

#### ***Buried Deposits Forecast***

Because archaeological sites may be buried with no surface manifestation, precluding their observation during pedestrian survey, the potential for buried archaeological resources within a given project area requires assessment. The probability that a buried archaeological resource exists in a project area is governed by several factors: (1) the presence of a buried, “stable land surface” called a paleosol; (2) the age of this paleosol; (3) the relative availability of a subsistence base required for human sustenance near the buried paleosol; and (4) the presence or absence of known archaeological resources in the area. Assessments that evaluate the potential for buried resources are commonly referred to as “geoarchaeological studies.”

Soils information and geoarchaeological data (Natural Resources Conservation Service 2016; Rosenthal et al. 2004) indicate that the soils within the Program area represent a variety of alluvial soils (e.g., Dinuba loamy sand, Hanford sandy loam, Madera sandy loam, Modesto clay loam, San Joaquin sandy loam, and Tujunga loamy sand) that date from the late Pleistocene through the Holocene Epoch and have depths of up to 80 inches. These soils are largely considered to have low sensitivity ratings for buried archaeological remains, although the Hanford series is considered to be moderately sensitive and the Tujunga is rated as highly sensitive for buried archaeological remains (Rosenthal et al. 2004). Proximity to the Tuolumne River increases the potential for buried resources within the Program area and project study area.

### 2.2 Prehistoric Context

Very little archaeological work has been conducted in the Modesto area, or in the San Joaquin Valley in general; therefore, the archaeology of the project area is understood within the prehistoric context developed for the Central Valley. Since the early 1930s a number of schemes have been set forth by researchers to organize the archaeological data of California into a chronological framework. The Central Valley sequence established by Lillard, Heizer and Fenenga in 1939 is particularly notable. Based on archaeological investigations in the lower Sacramento Valley, Lillard et al. divided human prehistory into three broad cultural horizons: Early, Middle, and Late. This chronology was first known as the Delta sequence and later became the basis of Richard Beardsley’s Central California Taxonomic System (CCTS) (Moratto 2004:181). The system relies on the identification of certain characteristics such as burial patterns, shell bead types, stone tools, and even where the sites tend to occur. These traits and characteristics are used to place an archaeological resource in a specific time period. The CCTS has continued to undergo significant refinement but remains the framework within

which California archaeologists explain cultural change. The general system is still widely used by archaeologists, but it has been expanded and revised to include economic and technological strategies, socio-politics, trade networks, population density, and variations of artifact types to differentiate between cultural periods. The current chronology (Rosenthal et al. 2010:150) for Central California archaeology includes:

- Paleo-Indian: 11,550 to 8550 B.C.
- Lower Archaic: 8550 to 5550 B.C.
- Middle Archaic: 5550 to 550 B.C.
- Upper Archaic: 550 B.C to 1100 A.D.
- Emergent: 1100 A.D. to Historic

The Paleo-Indian Period (11,550 to 8,550 B.C.) is generally characterized by big-game hunters occupying broad geographic areas. However, archaeological deposits from the Paleo-Indian period are rarely found in the Central Valley and those that have been identified have largely been discovered at the south end of the San Joaquin Valley near Tulare Lake. Post-depositional processes, mainly glacial outwash occurring at the end of the Pleistocene either destroyed or deeply buried much of the existing evidence of human activity in the region from this time period. As result, little is known about Paleo-Indian lifeways in the region. (Moratto 2004:214).

Similar to the preceding period, the Lower Archaic Period (8550 to 5550 B.C.) is presumed to reflect a mobile population who continued to hunt big game. There are few localities in the Central Valley associated with this period, and those that have been found are largely isolated artifacts consisting of large wide-stemmed and leaf-shaped projectile points, along with flaked stone crescents. Only two sites with associated deposits of faunal and shell remains have been identified for the Lower Archaic; one at Buena Vista Lake in the southern San Joaquin Valley (Rosenthal, et al. 2010: 151-152) and one in Sacramento (Tremaine 2008). Some sites in the Sierra Nevada foothills from this period, however, indicate the use of milling equipment (hand stones and milling stones) to process seeds and nuts.

The Middle Archaic Period (5550 to 550 B.C.) indicates a shift to a more settled way of life that is reflected by substantial, though often deeply buried, archaeological sites with artifacts that are more elaborate in design, infer a more diverse subsistence regime, and indicate interregional trade. Sites are often situated along the major rivers and streams within the Central Valley, emphasizing a focus on riverine and marsh habitats. The Windmill Tradition or Pattern, which was first identified in sites around the Sacramento-San Joaquin River Delta, is often considered representative of this period. Characteristic artifacts from this period include a variety of fish hooks and spears; large stemmed and leaf-shaped projectile points of obsidian and chert; shaped charmstones of alabaster, steatite, or marble; and a variety of *Halotis* and *Olivella* shell ornaments and beads, respectively. Mortars and pestles, associated with acorn preparation, become commonplace by the middle of the period. The presence of ventrally and dorsally extended burials with a western orientation is particularly indicative of the Windmill Pattern.

Increased sedentism and technological specialization are evidenced during the Upper Archaic Period (550 B.C to 1100 A.D.) as populations exploited more diverse resources and established trade relationships. Mortars and pestles became the primary ground stone implements, suggesting that acorns had become a more important dietary staple. Regional diversity in artifact styles, such as

*Haliotis* shell ornaments, bone tools, and ground charmstones or plummets become more pronounced; burial postures are also varied.

Archaeological sites from the Emergent Period (A.D. 1100 to the historic-period) indicate increased social complexity and the development of large, central villages with resident political leaders and specialized activity sites. Enhanced regional diversity in terms of artifact styles, housing, and interment methods is evident in the archeological record. Artifacts associated with the period include the bow and arrow, small corner-notched projectile points, and a variety of shell and stone beads and ornaments.

## 2.3 Ethnohistoric Context

The Modesto area lies within the ancestral territory of the Northern Valley Yokuts. “Yokuts” is a term applied to a large and diverse number of people inhabiting the San Joaquin Valley and Sierra Nevada foothills of central California. The Northern Valley Yokuts inhabited a 40- to 60-mile-wide area straddling the San Joaquin River, south of the Mokelumne River, east of the Diablo Range, and north of the sharp bend that the San Joaquin River takes to the east-northeast near Mendota in Fresno County. The Southern Valley Yokuts occupied the San Joaquin Valley south of the bend in the river. Although they were divided geographically and ecologically, the two Yokuts divisions have a common linguistic heritage (Wallace 1978:462).

The Northern Valley tribes closely resembled the Yokuts groups to the south, although there were some cultural differences. The northerners had greater access to salmon and acorns, two important dietary resources, than the Southern Yokuts, and some of their religious practices reflected the influences of groups to their north, such as the Miwok. While inhumation was the usual practice in the southern valley, the Northern Valley Yokuts either cremated their dead or buried them in a flexed position (Wallace 1978:464, 468). A chief headed the tribal villages, which averaged around 300 people. Family houses were round or oval in shape, sunken, with a conically shaped pole frame, and covered with tule mats. Each village also had a lodge for dances and other community functions, as well as a sweathouse (Wallace 1978:462-464).

The Northern Valley Yokuts built their riverside villages on elevated areas along the water’s edge to avoid the spring floods, which were a result of heavy Sierra Nevada snow melts. Living beside rivers and streams provided plentiful river perch, Sacramento pike, salmon, and sturgeon. Hunting provided waterfowl such as geese and ducks as well as terrestrial animals such as antelope, elk, and brown bear, although by all indications, fish constituted a majority of the diet. The surrounding woodland, grasslands, and marshes provided acorns, tule root, and seeds.

The Northern Valley Yokuts used bone harpoon tips for fishing, stone sinkers for nets, chert projectile points for hunting, mortars and pestles, scrapers, knives, and bone awl tools to procure and process food. Marine shells, procured from coastal tribes, were used for necklaces and other adornments, and marine shell beads sometimes accompanied the deceased. They used tule reed rafts to navigate the waterways for fishing and fowling. The Yokuts also manufactured a range of intricate baskets for a variety of purposes, including storing, cooking, eating, winnowing, hopper mortars, the transport of food materials, and ritual. Very little is known of the Northern Valley Yokuts’ clothing, but drawings of their tattoos show that they served not only as a decoration but also as a form of identity (Wallace 1978:464).

Initially, the Diablo Range served as a natural barrier against heavy recruitment of Native Californians by the Spanish, who established missions along the coast. However, by the early nineteenth century, Spanish and, later, Mexican missionaries began to explore the inner valleys in search of potential neophytes. The Yokuts resisted recruitment, and California Indians from a variety of tribes sought refuge among the Yokuts after fleeing the missions. Introduced diseases, destruction of traditional resources from cattle grazing, and forced relocation took a heavy toll on the Northern Yokuts. Despite decades of hardship, many individuals who can trace their ancestry to the Northern Valley Yokuts continue to live and thrive in the Central Valley and throughout California and the United States.

## 2.4 Historic-Era Context

The historic era began in Stanislaus County when the first Spanish expedition entered the San Joaquin Valley in 1806 under the leadership of Gabriel Moraga. Traveling north and northwest through the region in search of possible mission sites, Moraga's party explored up what came to be known as the Stanislaus River. Moraga visited the area again in 1808 and 1810 (Kyle et al 2002:516-517).

After Mexico gained its independence from Spain in 1822, two additional expedition forces entered the area; however, the purposes of their campaigns were no longer exploratory. Soldiers were sent into the Central Valley to recover stolen animals and punish rebellious Indians in order to reduce the attacks upon coastal towns, missions, and ranchos.

Americans also began to enter the region during the Mexican period. In both 1827 and 1828, Jedediah Smith entered the San Joaquin Valley via the Tejon Pass and trapped beavers along the San Joaquin, Kings, and other rivers and streams that flowed from the Sierra. Smith was followed by fellow trappers such as Peter Ogden, Ewing Young, Kit Carson, and Joseph Walker.

The first permanent European settlement in Stanislaus County may have occurred when two land grants were issued by the Mexican government in 1843. The first was the Rancho El Pescadero on the west side of the San Joaquin River near the border of what would eventually become San Joaquin County. The second was the Rancheria del Rio de Estanislao located north of the Stanislaus River bordering Tuolumne County. Two additional land grants were issued the following year. These were the Ranchos del Puerto and Orestimba, both of which were on the west side of the County near Rancho Pescadero (Tinkham 1921).

The City of Modesto came into being in 1870 when the Central Pacific Railroad announced the location would be the end point of the next extension of the rail line as it progressed south through the Central Valley (Kyle et al 2002:521). By the time the tracks were completed in November of that year, a viable town had already been established by entrepreneurs (City of Modesto 2016). Modesto residents were among California's first irrigation advocates, and by 1904 a system of canals had been constructed in order to allow more productive agriculture. During the nineteenth century grain-growing was Stanislaus County's dominant agricultural activity. Stock-raising, dairying, fruit and nut orchards, and vegetable farms all became more important over time. When Prohibition ended in 1933, the Gallo brothers came to Modesto, bringing the wine business to the area on an industrial scale. In the twenty-first century, almonds and walnuts are the most lucrative local crops, although fruit, vegetables, livestock, and other agricultural products remain important. Modesto is still the most important town in the region, and is the Stanislaus County seat.

### 3 Native American Consultation and Archival Research

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In accordance with the U.S. Secretary of the Interior’s Standards and the Guidelines for Archaeology and Historic Preservation (Title 48 CFR Section 44716 [amended 1983]), the goals of this archaeological inventory were to identify and completely document the location, qualities, and condition of any potential historic properties in the project’s APE. Methods employed to achieve these goals follow.

#### 3.1 Native American Consultation

Native American consultation was conducted pursuant to PRC Section 21080.3.1 by the City of Modesto. A request to the Native American Heritage Commission (NAHC) for a list of tribes with a traditional and cultural association with the proposed Program resulted in the identification of two tribes: the Northern Valley Yokuts and the Southern Sierra Miwok Nation. The City notified these tribes about the Program pursuant to PRC Section 21080.3.1 in a letter dated June 8, 2016. A letter was also sent to the Tule River Indian Tribe, as there had been consultation with that tribe in the past. The City did not receive requests for formal consultation under PRC Section 21080.3.1(b)(2) from any of those contacted. Follow-up phone calls were made to the Tule River Indian Tribe but did not receive a response. All correspondence with tribes related to PRC Section 21080.3.1 is provided in **Attachment 1**.

**Table 1. Native American Consultation**

Name of Contact	Tribe	Letter Date	Comments
Ms. Katherine Erolinda Perez, Chairperson	North Valley Yokuts Tribe	06/08/2016	N/A
Ms. Lois Martin, Chairperson	Southern Sierra Miwok Nation	06/08/2016	N/A
Mr. Neil Peyron, Chairperson	Tule River Indian Tribe	06/08/2016	City left message in fall 2016 but did not receive a response.

#### 3.2 Archival Research

A records search for the River Trunk Realignment Project study area was conducted by the CCIC of the California Historical Resources Information System at California State University, Stanislaus, before initiating the field study. The purpose of the records search was to determine if the River Trunk Project study area had previously been surveyed for cultural resources, and to identify any previously recorded cultural resources in, or within one-quarter mile of, the study area. The CCIC archival research (Records Search File No. 10317N) included review of the California Inventory of Historic Resources, local historical inventories, historical literature, and historical maps including USGS topographic maps, General Land Office maps, and Rancho Plat Maps. The records search results are presented in **Attachment 2**.

The records search indicated that 11 previous studies had included portions of the River Trunk Project study area; one overview also included the study area. These studies are listed in **Table 2**; another 21 studies had been conducted within the one-quarter mile search area. All of the studies listed were conducted in the study area east of 7th Street.

**Table 2: Previously Conducted Cultural Studies within the Proposed Project Study Area**

CCIC Report No. (ST-)	Author	Date	Title
035	L.K. Napton	1981	Seven California Counties: An Archaeological Overview, Alpine, Calaveras, Mariposa, Merced, San Joaquin, Stanislaus, and Tuolumne Counties, California, Parts 1 & 2.
1435	W. Hill	1992	Historic Architecture Survey Report: Track Consolidation and Realignment, Modesto, California
1836	Harmon, R. M., J. C. Bard, D. M. Garaventa, S. J. Rossa, and J. Yelding-Sloan	1992	Negative Archaeological Survey Report; Modesto Track Consolidation Corridor Lathrop, San Joaquin County and Modesto, Stanislaus County, California.
2759	Hatoff, B., B. Voss, S. Waechter, S. Wee, and V. Bente	1995	Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project.
2801	Marvin, J., and S. Davis-King	1996	Historic Property Survey Report (Positive) for the Seventh Street Bridge Project, City of Modesto, Stanislaus County, California.
3995	Nelson, W. J.	2000	Cultural Resources Survey for the Level (3) Communications Long Haul Fiber Optics Project; Segment WS04: Sacramento to Bakersfield.
4592	Gatlin, J. P., General Attorney	2000	Before the Surface Transportation Board: Docket No. AB-33 (Sub-No. 145X), Union Pacific Railroad Co.-- Abandonment Exemption--in Stanislaus Co., CA (Tidewater Subdivision Near Modesto, California), Combined Environmental and Historic Report.
4816	William Self Associates	2001	Cultural Resources Assessment Report, Tuolumne River Regional Park Master Plan EIR, Stanislaus County,
6345	SWCA Environmental Consultants	2006	Cultural Resources Final Report of Monitoring and Findings for the QWest Network Construction Project, State of California.
6352	EDAW, Inc.	2005	TRRP Gateway Precise Plan, Modesto, Ceres, Stanislaus County, California, Initial Study
7537	Kuzak, C.	2011	Historic Property Survey Report, 10-STA-99, P.M. 0.0/24.7, 2576 E-FIS1000020344, Stanislaus County, California.

CCIC Report No. (ST-)	Author	Date	Title
7775	Helton, C. and Cardenas, G.	2011	Cultural Resources Monitoring and Mitigation Plan, Almond 2 Power Plant, Turlock Irrigation District.

Data source: CCIC of the California Historical Resources Information System at California State University, Stanislaus.

The records search identified five previously recorded cultural resources within the River Trunk Project study area (**Table 3**). Two of these resources, the Tidewater-Southern Railroad wooden trestle bridge over the Tuolumne River (P-50-1811) and the Tidewater-Southern Railroad line, no longer exist. One of the resources, the Seventh Street Bridge (P-50-514), has been determined eligible for listing in the NRHP. The remaining resources have been determined not eligible for listing in the NRHP.

**Table 3. Previously Recorded Cultural Resources within Proposed Project Study Area**

Resource No. (P-50-X)	Resource Trinomial (CA-STA-X)	Recorded by	Date Recorded	Resource Information
0001	350H	various	1999–2007	Southern Pacific Railroad line; multiple sections recorded. Determined not eligible for the NRHP.
0083	425H	various	1992	Tidewater-Southern Railroad line; multiple sections recorded. Section in project area removed.
0514	—	J. Snyder W. Hill	1991 1992	Southern Pacific Railroad Tuolumne River Bridge; Bridge #113.75. Originally constructed 1897; significantly rebuilt 1944-45. Determined not eligible for the NRHP.
0617	—	Office of Historic Preservation L. Martin	1986 2000	Seventh Street Bridge; Lion Bridge; Bridge #38C-23; City of Modesto Designated Landmark Preservation Site #14. Constructed 1916. Determined eligible for listing in the NRHP.
1811	—	J. Snyder	1991	Tidewater-Southern Railroad Bridge; constructed 1914. Burnt down 2001.

Data source: CCIC of the California Historical Resources Information System at California State University, Stanislaus.

Another six previously recorded resources within one-quarter mile of the River Trunk Project alignment were identified. All of the resources are from the historic era, and include office and industrial buildings, features (e.g., a pump station and a water tower), and one scatter of historic artifacts.

The list of City of Modesto Designated Landmarks provided by the CCIC includes 59 resources, many of which are residences and buildings, but cemeteries and heritage trees, among other features, are also included. A vast majority are in the Modesto downtown core area. The Seventh Street Bridge is listed as Designated Landmark Preservation Site #14, and the Dryden Golf Course is listed as #52.

The Directory of Historic Places in the Historic Property Data File for Stanislaus County, compiled by the Office of Historic Preservation, lists a large number of resources in the Program area. While most of these are in Modesto, some are also situated in Ceres. These range from residences and buildings to water and transportation infrastructure, along with other features. A vast majority are assigned the California Historical Resources Code of 52D (identified as a contributor to a district that is eligible for local listing or designation) or 6Y (determined ineligible for listing on the NRHP).

Historic USGS topographic maps and historic aerials were examined in addition to the records search materials. USGS maps from 1915/1916 indicate that the area around the railroad yards between 7th and 9th streets were already well developed by that era, and that much of the town west of present-day State Highway 99 and south of Tuolumne Avenue to South Avenue was laid out, but not developed. South of South Avenue to the Tuolumne River, acreage within the River Trunk Project study area contained just a scattering of homes. By the 1940s (USGS 1939, 1941), much of the area within the River Trunk Realignment Project vicinity was well developed. The most significant modification was the construction of Highway 99 as a freeway through town by the early 1970s. In the area of the proposed Shackelford Pump Station, USGS topographic maps indicate that a number of buildings were in the vicinity (but not at the location) as early as 1939. These had disappeared by 1953 and were replaced by two building south of the proposed pump site. By 1969 (USGS 1969) the full contingent of buildings visible in the earliest aerial photograph (1967) were present, along with several railroad spurs to individual buildings. This is corroborated by aerial photographs (NetrOnline 2017) that indicate a variety of businesses (trucking, perhaps a feed lot) once occupied the site from at least 1967 until around 2002. After that time, the businesses are slowly dismantled and the immediate project area for the proposed Shackelford Pump Station is cleared of buildings by 2012.



## 4 Inventory Methods and Results

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### 4.1 Pedestrian Survey

A field review of the River Trunk Realignment Project footprint was conducted by qualified archaeologists from Horizon on June 15 and August 17, 2017. The field investigation consisted of two approaches. A pedestrian survey was conducted in areas where open trenching or bore pit excavation is proposed and the ground surface is undeveloped or where native ground surface is visible. A cursory inspection was conducted in areas where the ground surface is developed or paved and no native ground surface is visible. Figure 3 shows both the areas subject to pedestrian survey and those areas subject to cursory survey. The pedestrian component consisted of walking the proposed alignment or areas of proposed excavation using 10-meter transects. Any exposures of subsurface were more closely inspected and trowel exposures were also applied to the surface in areas that were heavily vegetated or grassy. The cursory inspection was conducted by car and any areas that were undeveloped were more closely inspected.

Approximately 6,850 linear feet (1.3 miles) and 1.5 acres at the Shackelford Pump Station were subject to intensive pedestrian survey. These areas included the east end of the pipeline from the Gallo property west to the River Trunk Pump Station and to Highway 99; from Neece Drive, two segments across the Dryden Golf Course to the Tuolumne River; and the proposed footprint of the Shackelford Pump Station and access road. The proposed location of the River Trunk Pump Station is currently a fully developed oil and gas storage facility and, therefore, was not subject to pedestrian survey. Other areas subject to cursory survey were paved streets in the City of Modesto, including Tuolumne Boulevard, Colorado Avenue, Neece Drive, and Pelton Avenue. The Sutter Plant is also fully developed and was not surveyed.

### 4.2 Survey Results

#### ***Dry Creek Crossing and Pipeline to River Trunk Pump Station***

This section of the pipeline was surveyed using pedestrian techniques. The exception was the proposed bore under Dry Creek, which was not accessible and no ground disturbance is proposed for this section of the pipeline. The bore pit, which is located on the Gallo Winery property, was surveyed; however, the entire area is under landscaped grasses and has been heavily graded. The survey of the pipeline west of Dry Creek was resumed in the open flood plain. Despite the heavy grass cover, the majority of the surface was highly visible in this section. The section from the River Trunk Pump station to B Street was also heavily vegetated and has been previously graded. The proposed pipeline would extend under a Union Pacific Railroad bridge and vehicle bridge for South 7th Street. In addition, the section closest to B Street has had some recent grading and construction of an access road that proceeds west toward the Tuolumne River and Route 99. The area for the proposed River Trunk Pump Station is currently an oil and gas storage facility that was developed and, therefore, not subject to pedestrian survey. No evidence of cultural resources was identified.

#### ***Shackelford Pump Station and Force Main***

A new gravity pipeline is proposed near the northwestern side of the Dryden Golf Course that would extend from Neece Drive to the Dryden Golf Course parking lot and cross the golf course toward the Tuolumne River. This section was subject to pedestrian survey. The surface was mostly covered by

grasses for the golf course or were otherwise developed. However, the riverbank of the Tuolumne River was open and was surveyed more closely. On the eastern side of the river is an area proposed for the Shackelford Pump Station and an access road from Crows Landing Road to the pump. This area was also subject to pedestrian survey. The surface was previously graded and consisted of loose gravel. The area closest to the river was covered in tall grasses (e.g., Arundo). No evidence of cultural resources was identified, although archival research indicated that industrial buildings were once at that location.

***Gravity Pipelines along Tuolumne Boulevard, Colorado Avenue, Neece Drive and Pelton Avenue City***

The remaining proposed gravity pipelines are planned in city streets of Modesto listed in the header above. These alignments were subjected to cursory inspection because they are under city streets and no visible ground surface is available to survey. The exception was the location of the alignment from the south end of Colorado Avenue, across Dryden Golf Course to the Sutter Plant, which was subject to pedestrian survey. No evidence of cultural resources was identified.

No archaeological resources were identified within the proposed project study area as the result of the archaeological field survey.

## 5 Summary and Recommendations

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The City of Modesto is proposing a revised Waste Water Master Plan that contains a number of project-level and program-level components. This document addressed the project-level aspects of this Program called the River Trunk Realignment Project as it pertains to the potential to impact or adversely affect archaeological resources. Archival research and a pedestrian survey did not identify any archaeological resources within the APE. One previously recorded historic resource, the Seventh Street Bridge (P-50-514), which has been determined eligible for listing in the NRHP, will not be impacted; the proposed alignment will be bored under this bridge.

Given the rate of landscape change in the San Joaquin Valley and the proximity of the proposed alignments and proposed facilities to areas of urban, railroad, and commercial activities, the existence of substantial and intact surface manifestations of cultural activity is not expected. Although no archaeological sites were identified by the archaeological inventory, archaeological sites may be buried with no surface manifestation. Furthermore, the soils that underlie the Project location have a moderate to very high sensitivity for the presence of buried archaeological remains. If prehistoric or historic-era materials are encountered, all work in the vicinity should halt until a qualified archaeologist can evaluate the discovery and make recommendations pursuant to 36 CFR Section 800.13(b). Prehistoric materials will most likely include obsidian and chert flaked-stone tools (e.g., projectile points, knives, choppers), tool-making debris, or milling equipment, such as mortars and pestles. Historic materials might include remains of agricultural implements, stone or concrete footings and walls, and deposits of metal, glass, and/or ceramic refuse.

The possibility of encountering human remains cannot be discounted. Section 7050.5 of the California Health and Safety Code states that it is a misdemeanor to knowingly disturb a human burial. If human remains are encountered, work must halt in the vicinity of the remains and, as required by law, the Stanislaus County coroner should be notified immediately. An archaeologist should also be contacted to evaluate the find. If human remains are of Native American origin, the coroner must notify the NAHC within 24 hours of that determination. Pursuant to California PRC Section 5097.98, the NAHC, in turn, will immediately contact an individual who is most likely descended from the remains (i.e., the Most Likely Descendant). The Most Likely Descendant has 48 hours to inspect the site and recommend treatment of the remains. The landowner is obligated to work with the Most Likely Descendant in good faith to find a respectful resolution to the situation and entertain all reasonable options regarding the Most Likely Descendant's preferences for treatment.

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## 6 References

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**Attachment 1**  
**Native American Correspondence**

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June 8, 2016

Lois Martin, Chairperson  
Southern Sierra Miwuk Nation  
P.O. Box 186  
Mariposa, CA 95338

Subject: City of Modesto Utilities Department Wastewater Master Plan Update Environmental Impact Report

Dear Chairperson Martin,

The City of Modesto (City) Utilities Department will serve as lead agency under the California Environmental Quality Act (CEQA) in preparing an Environmental Impact Report (EIR) for the Wastewater Master Plan (WWMP) Update (Program or Proposed Project) EIR. A Notice of Preparation will be released, as required by California Code of Regulations title 14, section 15000 et seq. The City periodically reevaluates its wastewater service system through development of a wastewater master plan, which reviews existing and planned sanitary sewer infrastructure relative to the projected urban growth of the City. The City has made a number of improvements that were identified in the 2007 Wastewater Master Plan but still faces challenges associated with aging infrastructure, providing reliability of critical facilities and, for future growth, providing increased capacity and extending infrastructure when it is needed.

The Program would consist of numerous Capital Improvement Projects (CIPs) collectively intended for system-wide implementation needed to ensure adequate wastewater infrastructure and services are available to meet wastewater demand requirements under both existing and future developed conditions. The Program all incorporated areas of Modesto, a portion of north Ceres, the unincorporated community of Empire, and unincorporated "islands" in Stanislaus County that are served by agreement with the City (Figure 1). The Sutter Avenue Primary Treatment Plant (Primary Plant or Sutter Plant) is in the southwestern portion of Modesto adjacent to the north bank of the Tuolumne River. The Jennings Road Secondary Treatment Plant (Secondary Plant or Jennings Plant) is approximately 6.5 miles southwest of the Modesto urban area and located on City-owned land on the eastern side of the San Joaquin River. These areas are shown in Figure 2.

The Program involves several improvements to the City's collection system, such as replacement or construction of new trunk sewers or pump stations, construction of new parallel sewers, and removal of storm drain cross connections. Proposed improvements at the Sutter Plant include, but are not limited to, upgrading the influent pump station to increase its hydraulic capacity to convey peak wet weather flows, improvements to the headworks facilities, and decommissioning of primary treatment and solids handling facilities. The Program also includes outfall pipeline improvements, such as replacement of

existing pipe crossings under the Tuolumne River and construction of a new third outfall pipeline from the Sutter Plant to the Jennings Plant. At the Jennings Plant, the Program includes upgrades to the secondary and Cannery Segregation treatment facilities, and construction of new primary treatment and solids handling facilities.

Most of the proposed CIPs would be implemented within the City's sewer service area, the Sutter Plant, and the Jennings Plant. The Program also proposes a third outfall pipeline connecting the Sutter and Jennings Plants (Figure 3). The exact locations of some of the proposed new facilities (e.g., collection system improvements and outfall pipeline) have yet to be finalized; where tentative sites have been identified, these locations will be identified in the Draft EIR.

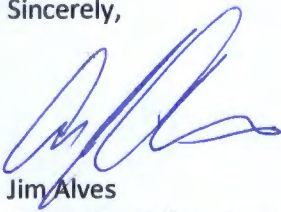
Pursuant to Public Resources Code Section 21080.3.1 *et seq.*, the City of Modesto Utilities Department is notifying you of our intent to consider the Proposed Project. To initiate formal consultation with the City regarding any potential impacts of this Proposed Project on tribal cultural resources, Public Resources Code Section 21080.3.1(e) requires that you contact us within 30 days from your receipt of this letter. If you wish to request the consultation, or if you have any questions, please contact:

Jim Alves  
Associate Civil Engineer  
City of Modesto Utilities Department  
1010 Tenth Street, Suite 4600  
Modesto, CA 95353  
Phone: (209) 571-5557  
Email: [jalves@modestogov.com](mailto:jalves@modestogov.com)

If you do not contact us within 30 days following receipt of this letter, the City of Modesto Utilities Department will proceed with processing the above referenced application with the assumption that the project will not have a potential effect on tribal cultural resources. If consultation is requested, please provide the name and contact information of the designated lead contact person as part of your request. The City will contact the designated person to set a meeting date to begin consultation within 30 days of our receipt of your request.

More detailed information about this project is available, at your request. Thank you for giving this matter your prompt attention.

Sincerely,



Jim Alves  
Associate Civil Engineer  
City of Modesto Utilities Department  
2647248.1

Attachments

2667716.1



June 8, 2016

Neil Peyron, Chairperson  
Tule River Indian Tribe  
P.O. Box 589  
Porterville, CA 93258

Subject: City of Modesto Utilities Department Wastewater Master Plan Update Environmental Impact Report

Dear Chairperson Peyron,

The City of Modesto (City) Utilities Department will serve as lead agency under the California Environmental Quality Act (CEQA) in preparing an Environmental Impact Report (EIR) for the Wastewater Master Plan (WWMP) Update (Program or Proposed Project) EIR. A Notice of Preparation will be released, as required by California Code of Regulations title 14, section 15000 et seq. The City periodically reevaluates its wastewater service system through development of a wastewater master plan, which reviews existing and planned sanitary sewer infrastructure relative to the projected urban growth of the City. The City has made a number of improvements that were identified in the 2007 Wastewater Master Plan but still faces challenges associated with aging infrastructure, providing reliability of critical facilities and, for future growth, providing increased capacity and extending infrastructure when it is needed.

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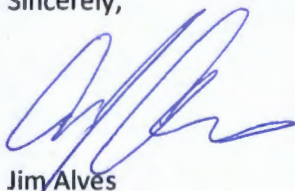
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Sincerely,



Jim Alves  
Associate Civil Engineer  
City of Modesto Utilities Department  
2647248.1

Attachments

2667716.1



June 8, 2016

Katherine Erolinda Perez, MLD  
North Valley Yokuts Tribe  
990 North Fine Road  
Linden, CA 95236

Subject: City of Modesto Utilities Department Wastewater Master Plan Update Environmental Impact Report

Dear Ms. Perez,

The City of Modesto (City) Utilities Department will serve as lead agency under the California Environmental Quality Act (CEQA) in preparing an Environmental Impact Report (EIR) for the Wastewater Master Plan (WWMP) Update (Program or Proposed Project) EIR. A Notice of Preparation will be released, as required by California Code of Regulations title 14, section 15000 et seq. The City periodically reevaluates its wastewater service system through development of a wastewater master plan, which reviews existing and planned sanitary sewer infrastructure relative to the projected urban growth of the City. The City has made a number of improvements that were identified in the 2007 Wastewater Master Plan but still faces challenges associated with aging infrastructure, providing reliability of critical facilities and, for future growth, providing increased capacity and extending infrastructure when it is needed.

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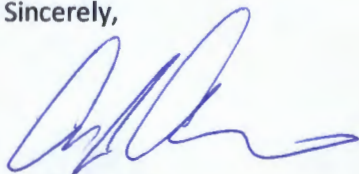
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City of Modesto Utilities Department  
1010 Tenth Street, Suite 4600  
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Email: [jalves@modestogov.com](mailto:jalves@modestogov.com)

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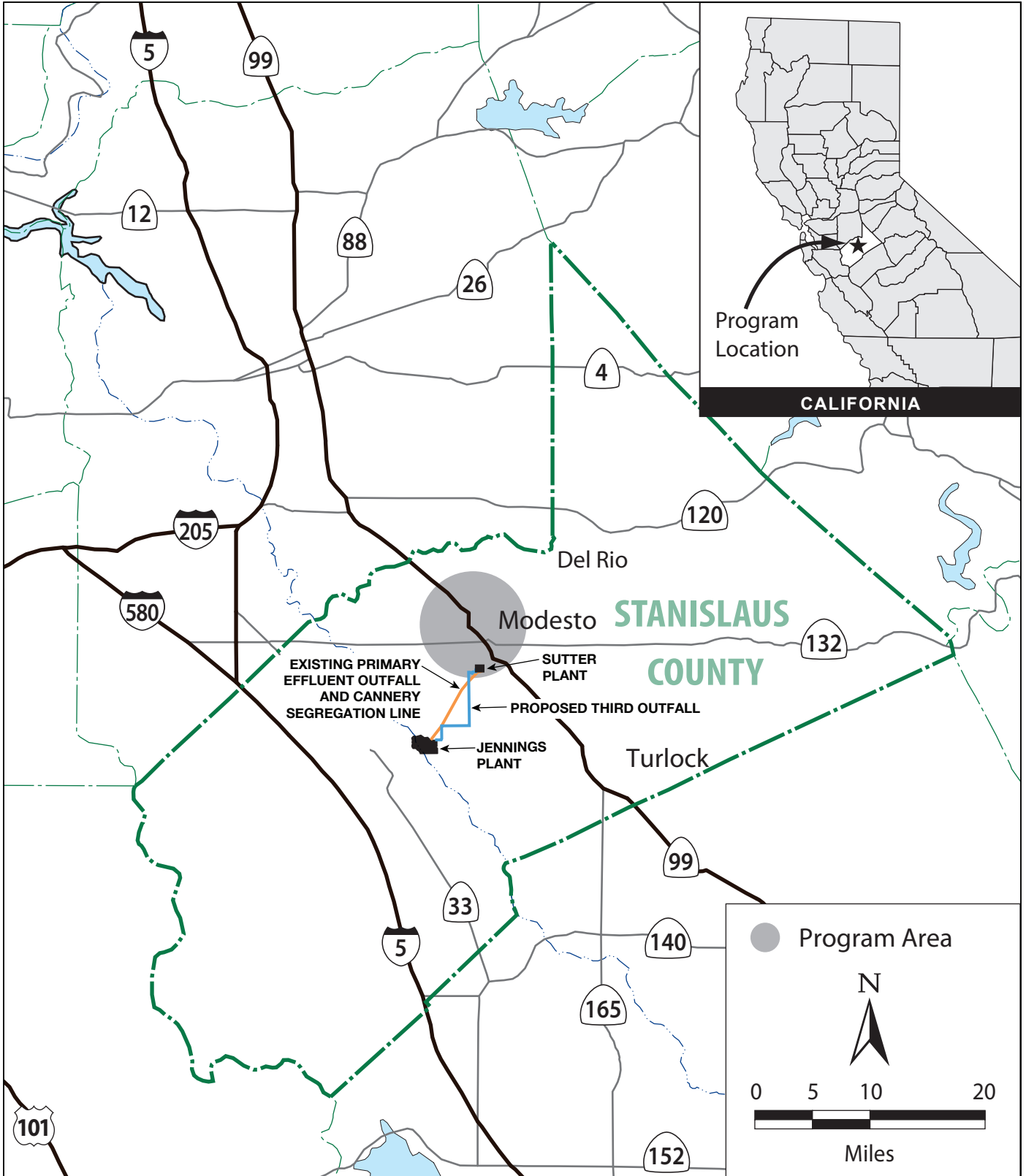
Sincerely,



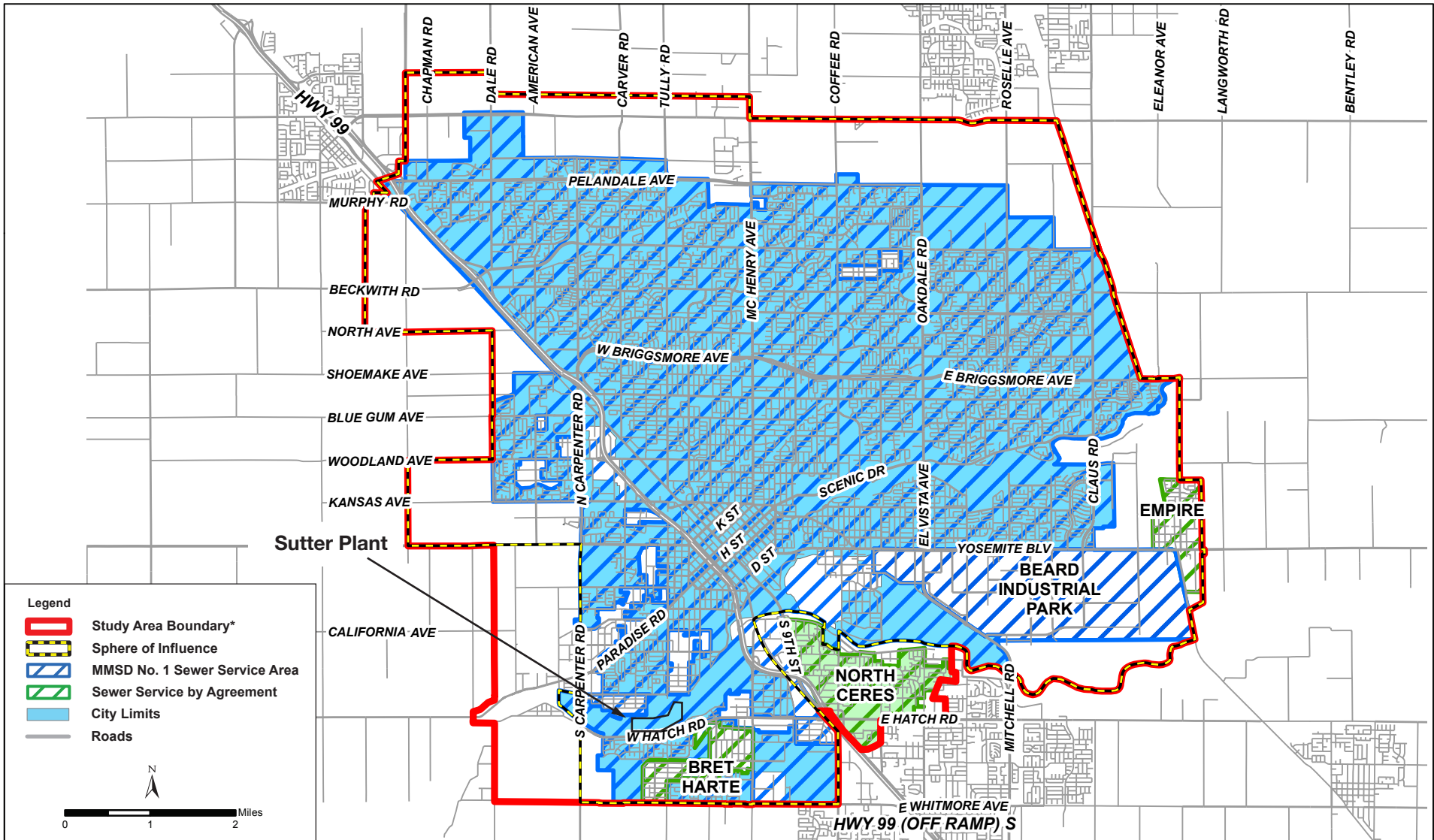
Jim Alves  
Associate Civil Engineer  
City of Modesto Utilities Department  
2647248.1

Attachments

2667716.1



**Figure 1**  
**Project Location**



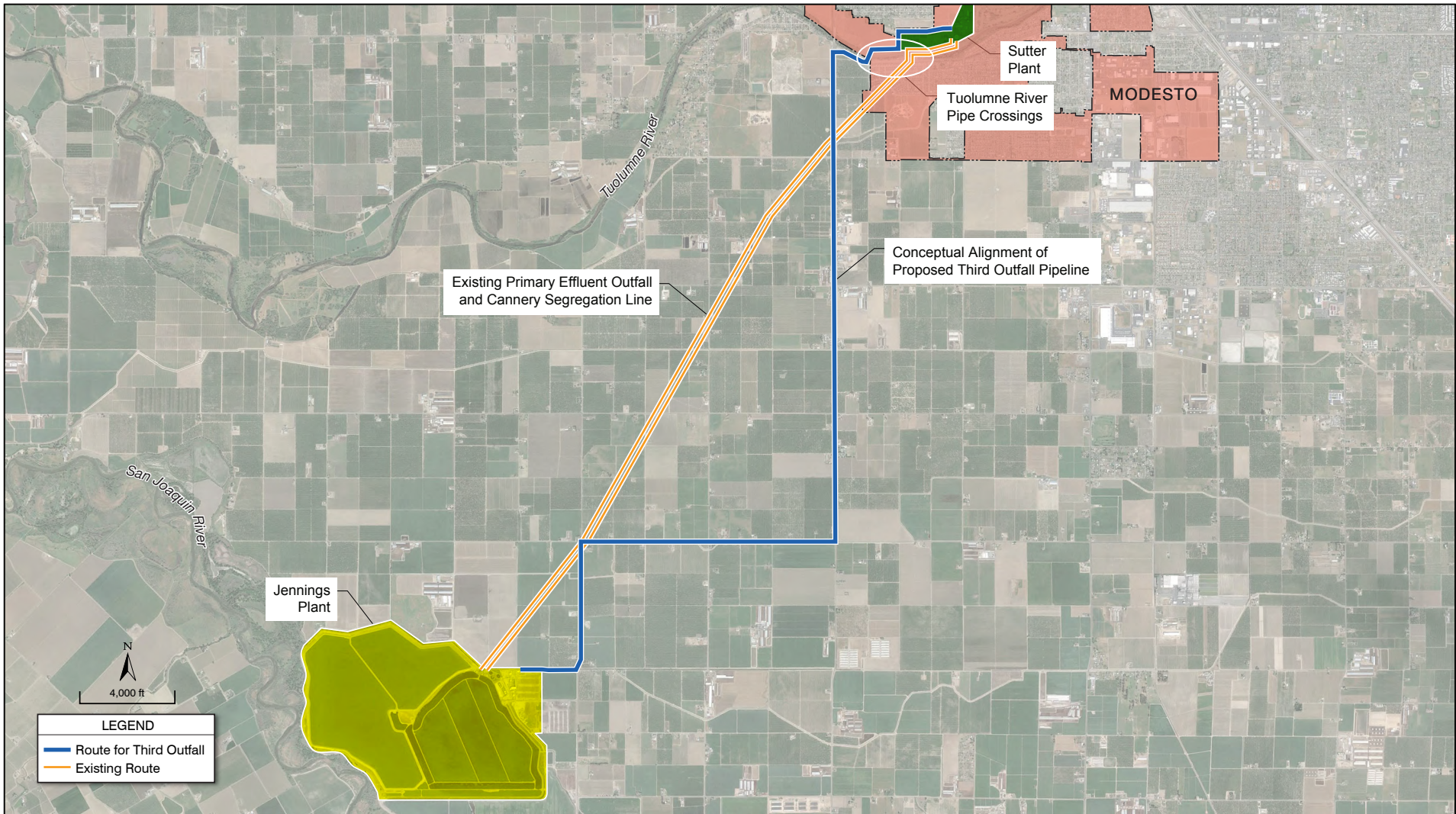
**Figure 2**  
**Wastewater Master Plan Sewer Service Study Area**

Source: City of Modesto, 2016

Prepared by:







**Figure 3**  
**Location of Wastewater Treatment Plants**

Source: Carollo, 2016

Prepared by:



**City of Modesto Wastewater Master Plan Update**



**Attachment 2**  
**CHRIS Northwest Information Center Results**

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## CENTRAL CALIFORNIA INFORMATION CENTER

*California Historical Resources Information System*  
Department of Anthropology – California State University, Stanislaus  
One University Circle, Turlock, California 95382  
(209) 667-3307

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*Alpine, Calaveras, Mariposa, Merced, San Joaquin, Stanislaus & Tuolumne Counties*

Date: 5/30/2017

Records Search File No.: 10317N

Access Agreement: #412

Project: Modesto Waste Water  
Management Program

Janis Offermann  
Horizon Water and Environment  
555 Capitol Mall, Suite 800  
Sacramento, CA 95814

Janis@horizon2o.com

Dear Ms. Offermann:

The Central California Information Center received your record search request for the project area referenced above, located on the Brush Lake, Ceres, Riverbank and Salida USGS 7.5' quadrangles in Stanislaus County. The following reflects the results of the records search for the project study area and radius:

As per data currently available at the CCalC, the locations of resources/reports are provided in the following format:  custom GIS maps  shapefiles  hand-drawn maps

### Summary Data:

Resources within project area:	5: unrecorded portions of P-50-000001 (Southern Pacific RR), P-50-000083, 514, 617, and 1811 <b>Note:</b> See the attached Directory of Properties in the Historic Property Data File for Ceres & Modesto; these resources are not mapped, there may be additional historic properties within the project area/radius.
Resources within 1/4 mi radius:	6: P-50-000084, 438, 439, 524, 1999, 2018 (see Note as referenced above).
Reports within project area:	12: ST-0000035 (overview); ST-01435, 1836, 2759, 2801, 3995, 4592, 4816, 6345, 6352, 7537, 7775
Reports within 1/4 mi radius:	21: ST-02222, 2848, 2930, 3747, 3878, 3882, 4296, 4760, 4849, 5007, 5358, 5574, 6775, 6777, 6915, 7076, 7388, 7589, 7828, 7946, 8208

**Resource Database Printout (list):**  enclosed  not requested  nothing listed

**Resource Database Printout (details):**  enclosed  not requested  nothing listed

**Resource Digital Database Records:**  enclosed  not requested  nothing listed

**Report Database Printout (list):**  enclosed  not requested  nothing listed

**Report Database Printout (details):**  enclosed  not requested  nothing listed

**Report Digital Database Records:**  enclosed  not requested  nothing listed

**Resource Record Copies:**  enclosed  not requested  nothing listed

**Report Copies:**  enclosed  not requested  nothing listed

**OHP Historic Properties Directory:**  enclosed  not requested  nothing listed

City of Ceres and Modesto; see also listing for P-50-83, 524, 617, and 1811

**Archaeological Determinations of Eligibility:**  enclosed  not requested  nothing listed

**CA Inventory of Historic Resources (1976):**  enclosed  not requested  nothing listed

**Caltrans Bridge Survey:**  enclosed  not requested  nothing listed

**Ethnographic Information:**  enclosed  not requested  nothing listed

**Historical Literature:**  enclosed  not requested  nothing listed

*Historic Spots in California* (Kyle ed. 1990:491-492, Modesto

**Historical Maps:**  enclosed  not requested  nothing listed

Official Map of Stanislaus County (1906)

Modesto West 1:62500-scal (1941)

Brush Lake 7.5' (1953)

Ceres 7.5' (969)

Riverbank 7.5' (1969)

Salida 7.5' (1953)

**Local Inventories:**  enclosed  not requested  nothing listed

City of Modesto Designated Landmark Preservation Sites (2011)

**GLO and/or Rancho Plat Maps:**  enclosed  not requested  nothing listed

T3S R9E Sheet 44-186 (1853-1854)

T4S R9E Sheet 44-244 (8153-1854)

**Shipwreck Inventory:**  not available at CCIC; please go to

[http://shipwrecks.slc.ca.gov/ShipwrecksDatabase/Shipwrecks\\_Database.asp](http://shipwrecks.slc.ca.gov/ShipwrecksDatabase/Shipwrecks_Database.asp)

**Soil Survey Maps:**  not available at CCIC; please go to

<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

**Resources known to have value to local cultural groups:** None have been formally reported to the CCIC.

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System (CHRIS).

**Note:** Billing will be transmitted separately via email by our Financial Services office \*(\$926.55), payable within 60 days of receipt of the invoice.

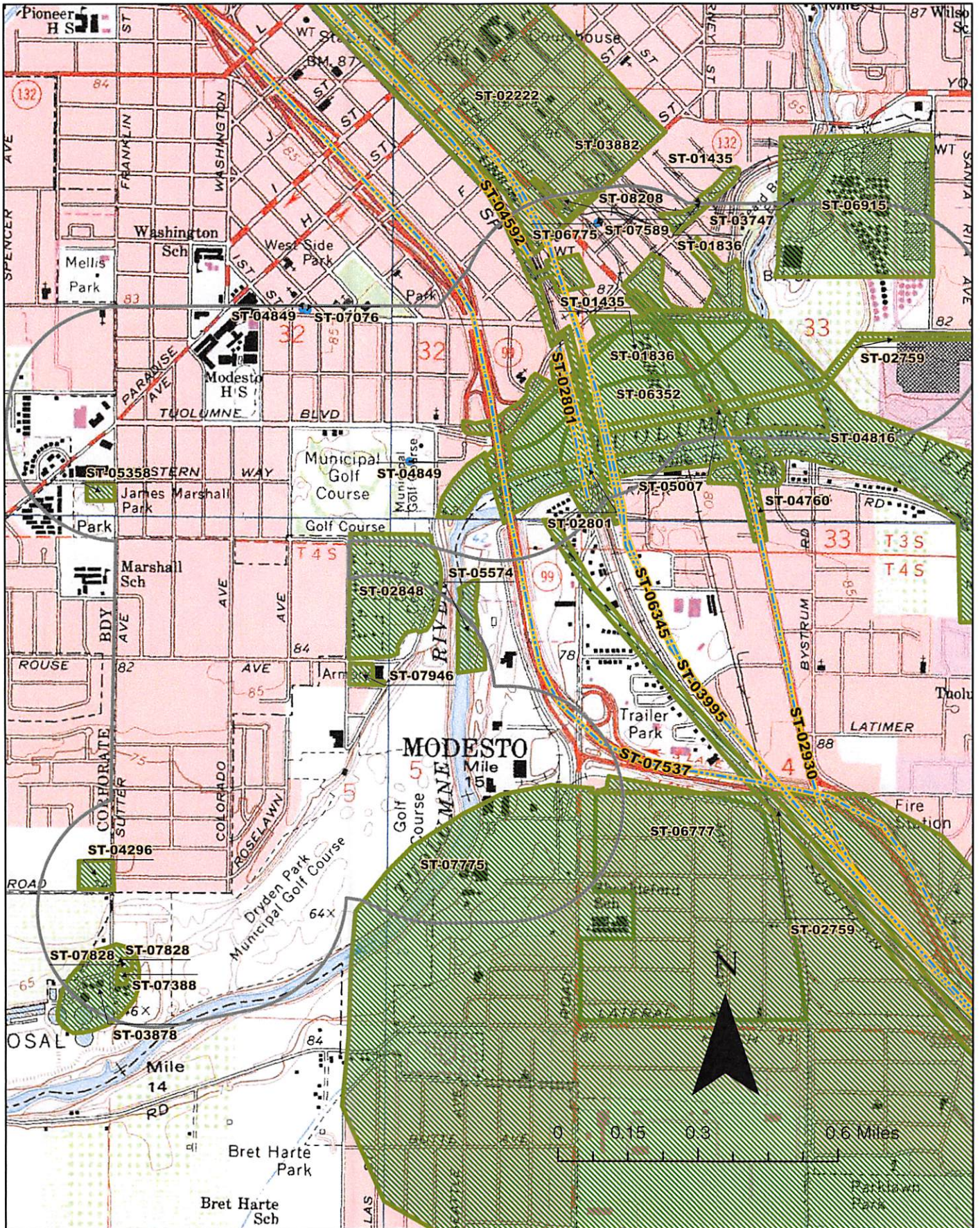
Sincerely,



E. A. Greathouse, Coordinator  
Central California Information Center  
California Historical Resources Information System

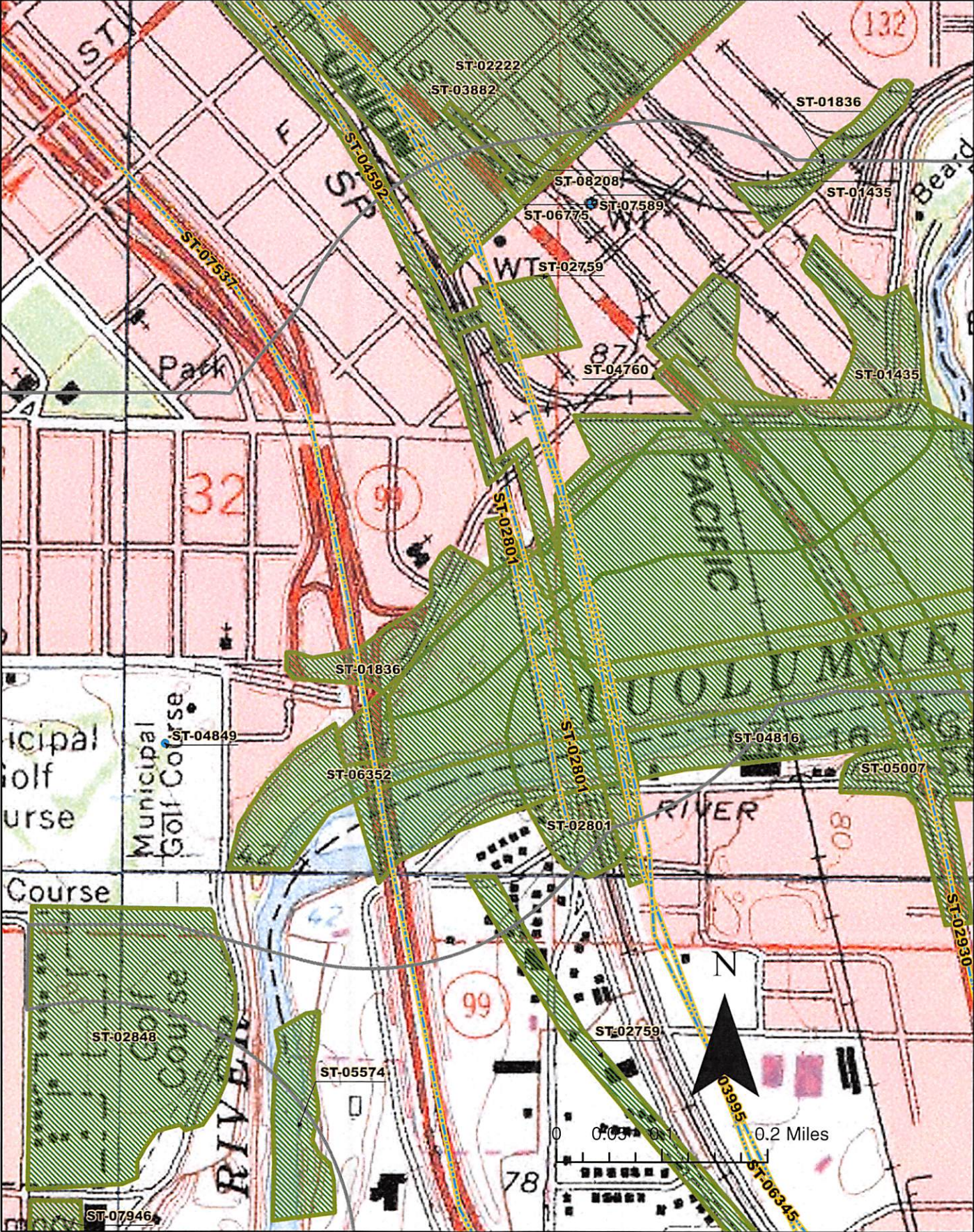
\* Invoice Request sent to: Laurie Marroquin CSU Stanislaus Financial Services  
[lamarroquin@csustan.edu](mailto:lamarroquin@csustan.edu)

# CCaIC 10317N Overview Map of Reports

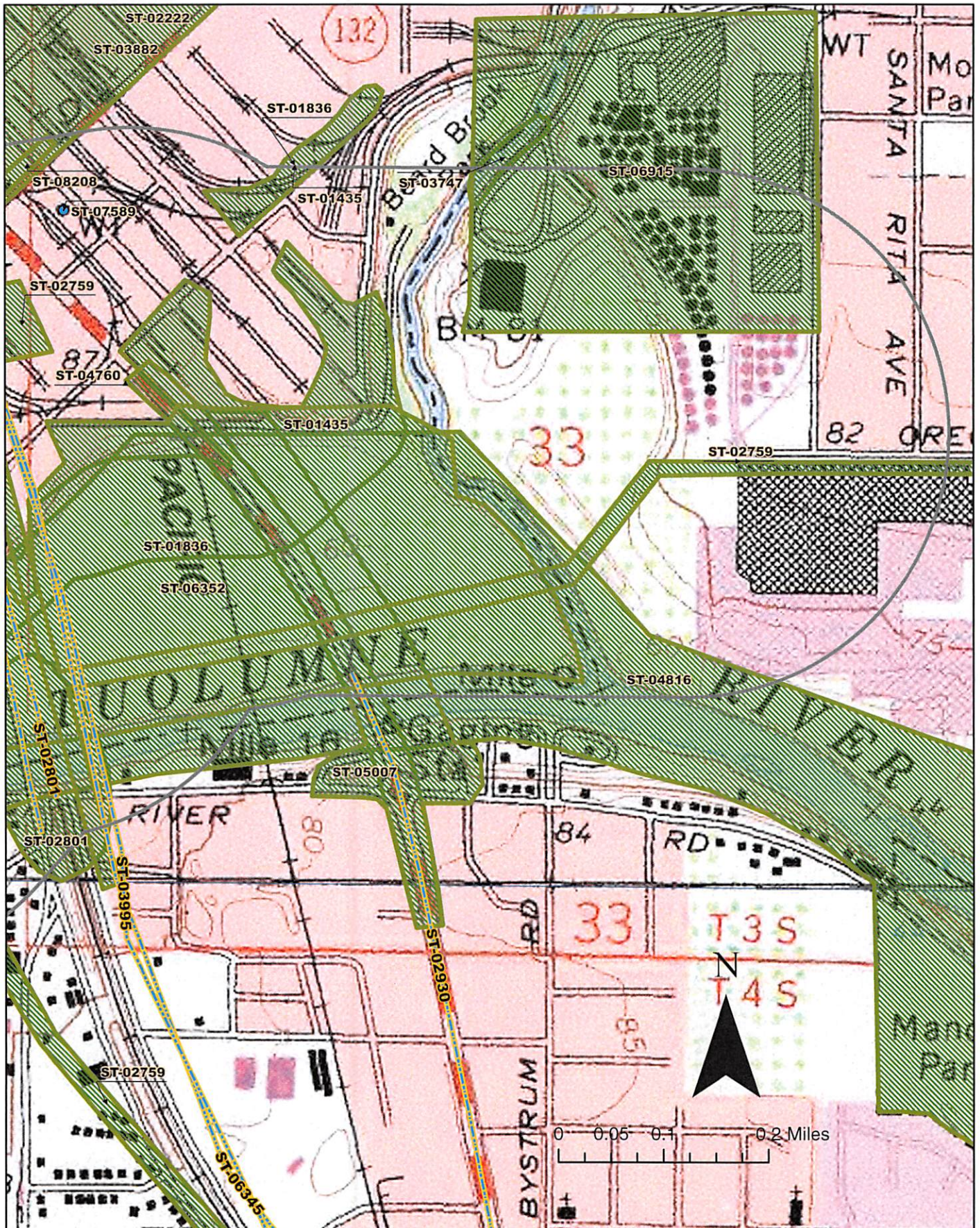




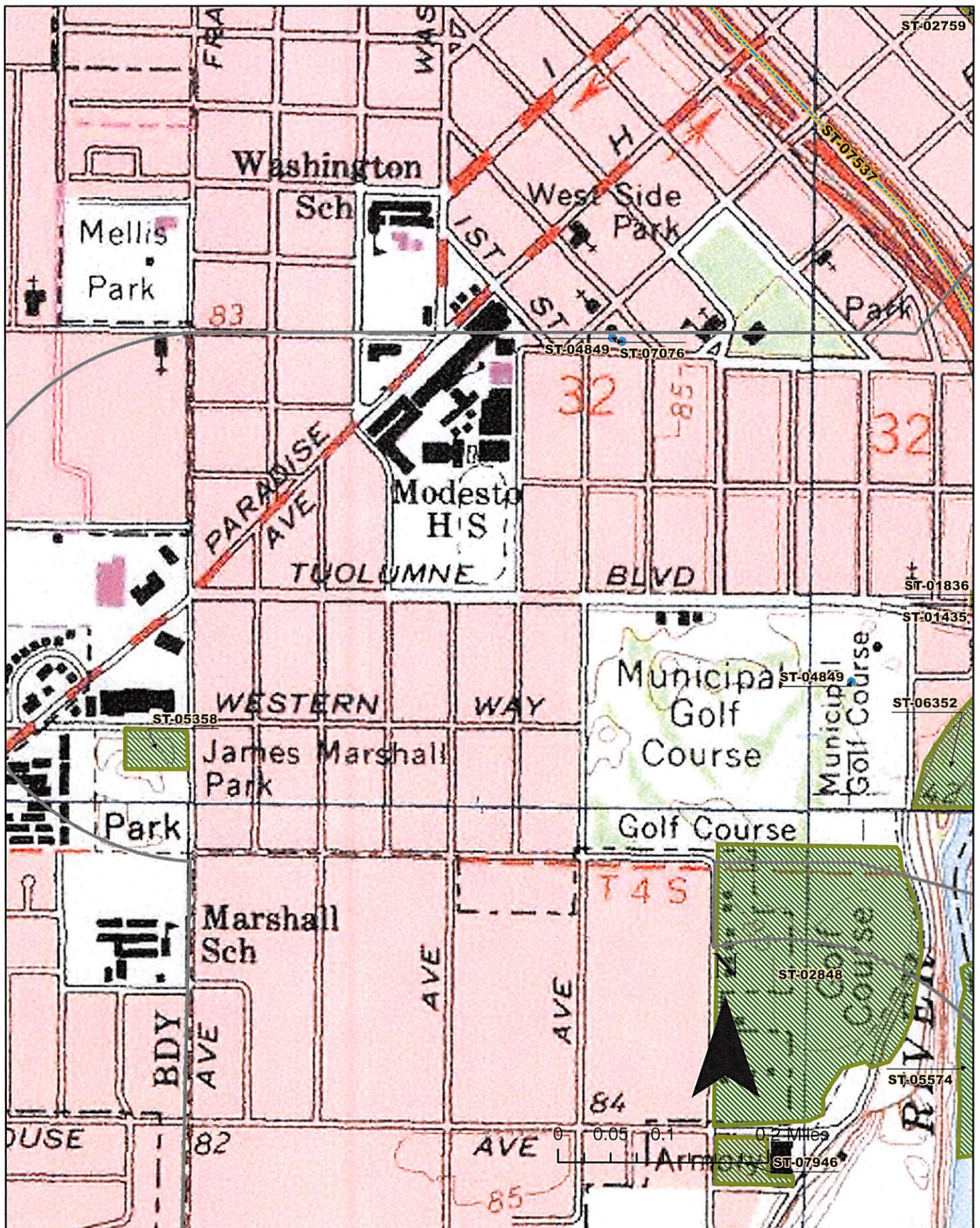
# CCaIC 10317N Detail Map of Reports



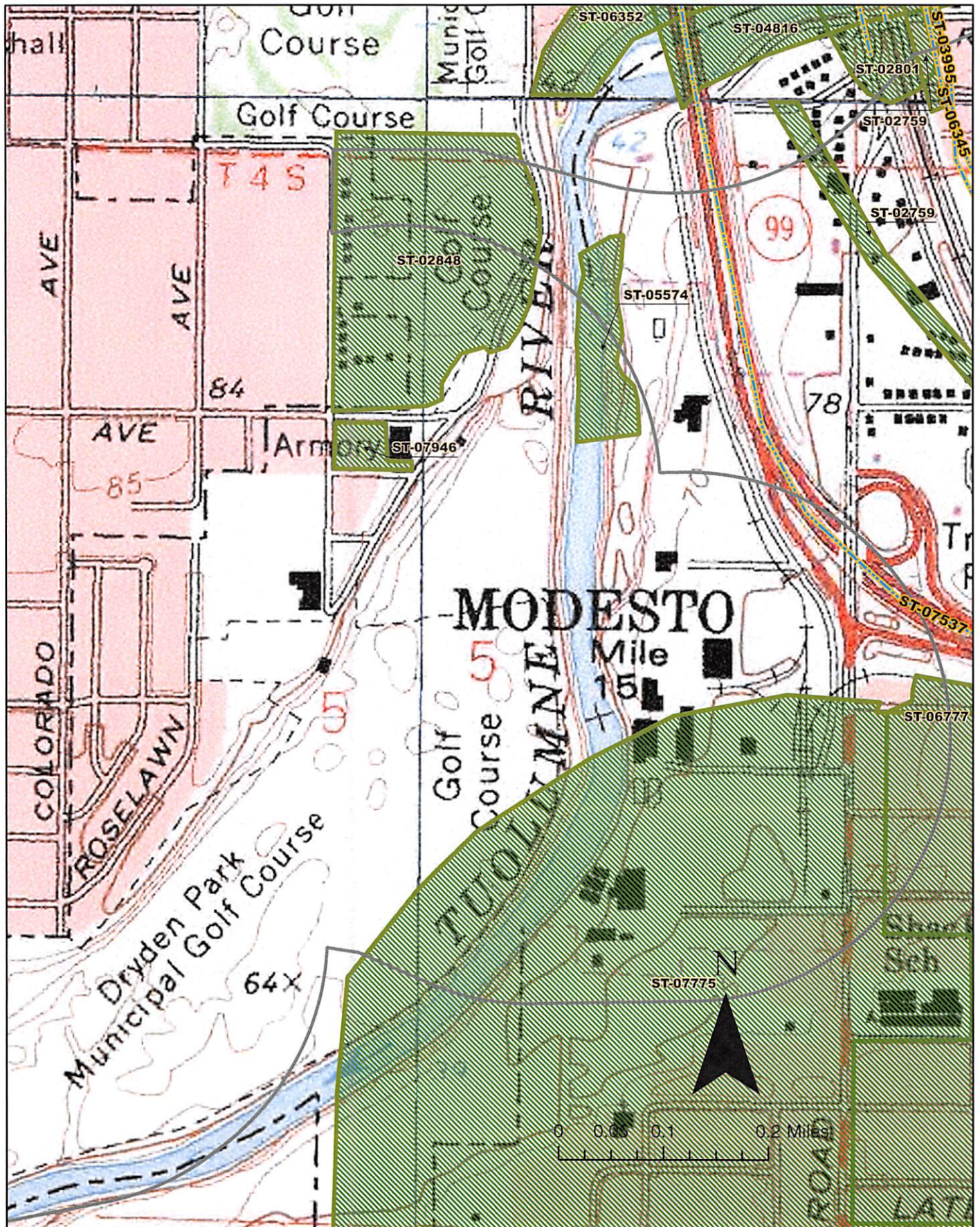
# CCaIC 10317N Detail Map of Reports



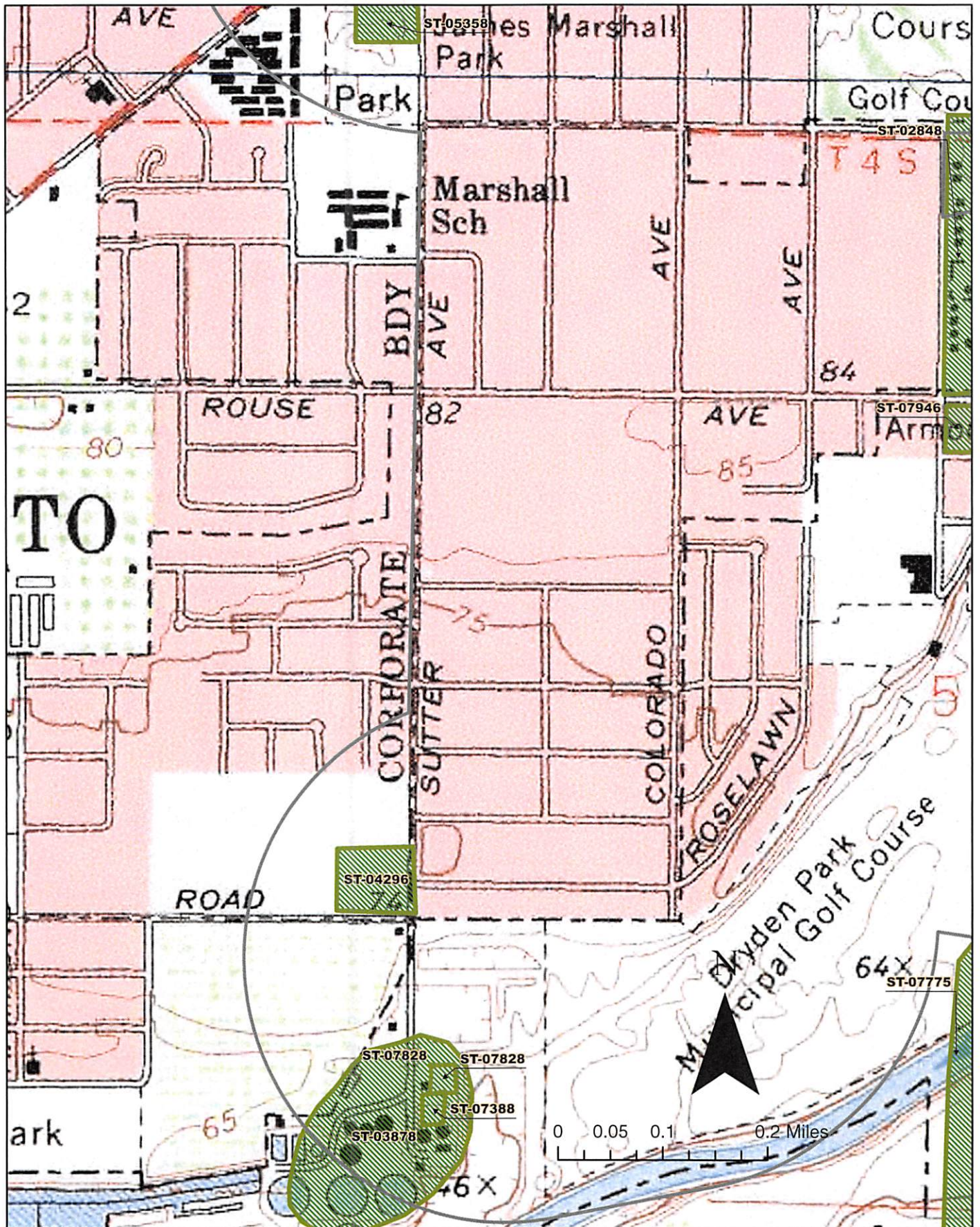
# CCaIC 10317N Detail Map of Reports



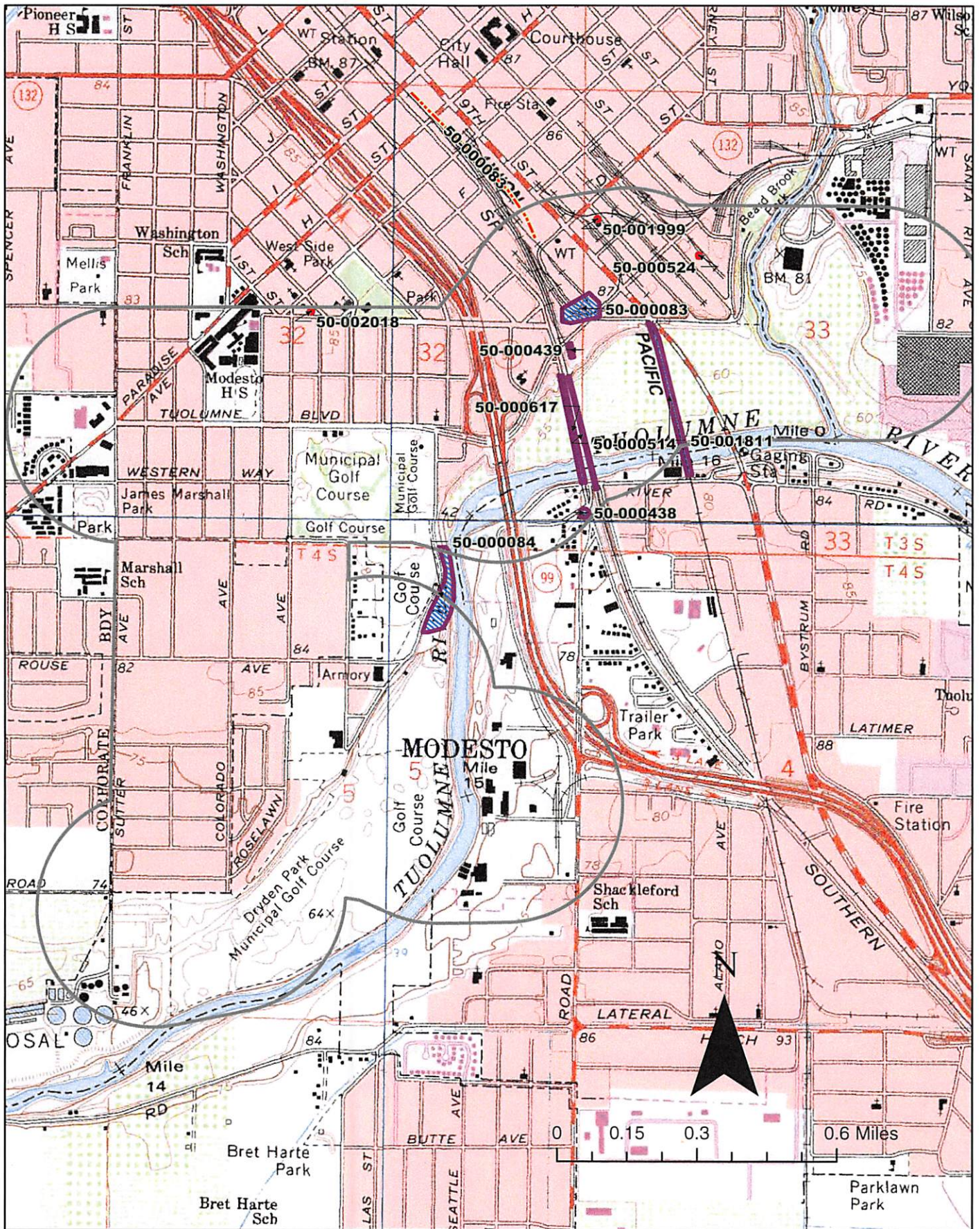
# CCaIC 10317N Detail Map of Reports



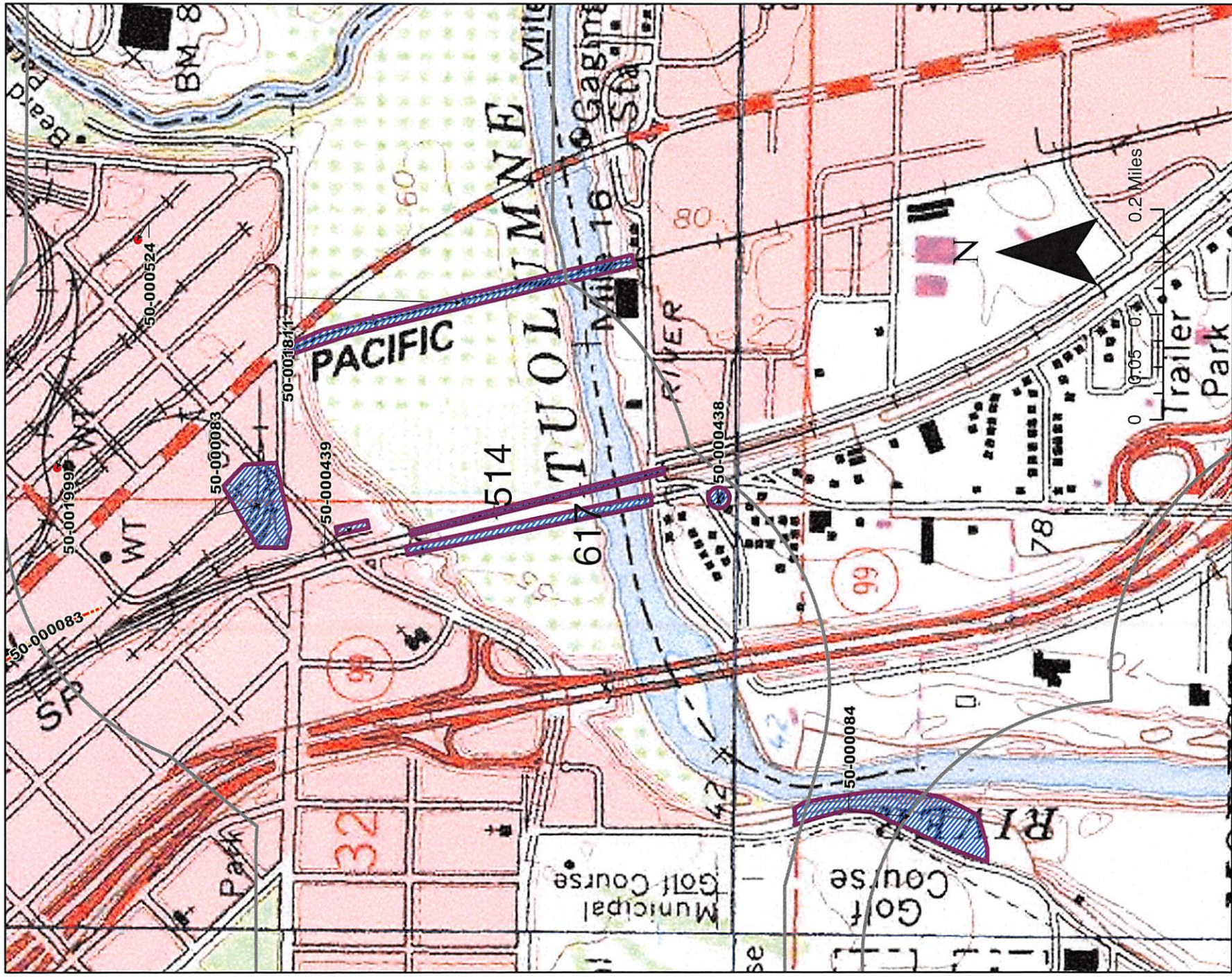
# CCaIC 10317N Detail Map of Reports



# CCaIC 10317N Overview Map of Resources



CCaIC 10317N Detail Map of Resources



# Report Detail: ST-00035

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## Identifiers

Report No.: ST-00035

Other IDs:	Type	Name
	NADB-R	1366000

Cross-refs: Extends into another county as AP-00035  
Extends into another county as CA-00035  
Extends into another county as MP-00035  
Extends into another county as ME-00035  
Extends into another county as SJ-00035  
Extends into another county as TO-00035

## Citation information

Author(s): Napton, L. K.

Year: 1981 (May)

Title: Seven California Counties: An Archaeological Overview, Alpine, Calaveras, Mariposa, Merced, San Joaquin, Stanislaus, and Tuolumne Counties, California, Parts 1 & 2.

Affiliation: Institute for Archaeological Research, CSC Stanislaus (prepared for California State Office of Historic Preservation)

No. pages: 451

No. maps:

Attributes: Archaeological, Other research

Inventory size: NA

Disclosure: Not for publication

Collections: No

## General notes

7-county overview

## Associated resources

No. resources: 0

Has informals: No

## Location information

County(ies): Stanislaus

USGS quad(s):

Address:

PLSS:

## Database record metadata

Date	User
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Entered: 10/2/2013 jay

Last modified: 1/26/2016 EGreathouse

IC actions:	Date	User	Action taken
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10/2/2013 jay Appended records from CCIC NADB database

1/26/2016 EGreathou eg

Record status:



# Report Detail: ST-01435

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## Identifiers

Report No.: ST-01435

Other IDs:	Type	Name
	NADB-R	1361696

Cross-refs:

## Citation information

Author(s): Hill, W.

Year: 1992 (Mar)

Title: Historic Architecture Survey Report; Track Consolidation and Realignment, Modesto, California

Affiliation: Ward Hill

No. pages: 29

No. maps:

Attributes: Architectural/Historical, Field study, Other research

Inventory size:

Disclosure: Not for publication

Collections: No

## General notes

No records provided

## Associated resources

Primary No.	Trinomial	Name
P-50-000513		9th & Needham Street Commerc
P-50-000514		Tuolumne River Bridge (S.P. RR
P-50-000515		415 Kansas; Kansas/Beech Stre
P-50-000516		Chemical-Steam Cleaner, 315 K
P-50-000517		Color Masters Auto Painting, 30
P-50-000518		Hiebert & Vander Plaats Petrole
P-50-000519		Fred L. Hill Plumbing, 1137 Nee
P-50-000520		Old Mill Café, 1602 9th Street (d
P-50-000521		Quik Serve Market, 1122 Needh
P-50-000522		Modesto Veterinary Hospital, 15
P-50-000523		Rainbo Bakery, 1517 10th Street
P-50-000524		Booth's Packing Company, 110-

No. resources: 12

Has informals: No

## Location information

County(ies): Stanislaus

USGS quad(s): Ceres, Lathrop, Riverbank, Salida

Address:

PLSS:

## Database record metadata

Date	User
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Entered: 10/2/2013 jay

Last modified: 1/26/2017 Anthro

IC actions:	Date	User	Action taken
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10/2/2013 jay Appended records from CCIC NADB database

1/26/2017 Anthro JS

Record status:

# Report Detail: ST-01836

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## Identifiers

Report No.: ST-01836

Other IDs:	Type	Name
	NADB-R	1366055

Cross-refs:

## Citation information

Author(s): Harmon, R. M., J. C. Bard, D. M. Garaventa, S. J. Rossa, and J. Yelding-Sloan

Year: 1992 (Jul)

Title: Negative Archaeological Survey Report; Modesto Track Consolidation Corridor Lathrop, San Joaquin County and Modesto, Stanislaus County, California.

Affiliation: DeLeuw, Cather & Company

No. pages: 26

No. maps:

Attributes: Archaeological, Field study

Inventory size: 236 Acres

Disclosure: Not for publication

Collections: No

## General notes

### Associated resources

No. resources: 0

Has informals: No

### Location information

County(ies): Stanislaus

USGS quad(s): Ceres, Lathrop, Riverbank, Salida

Address:

PLSS:

### Database record metadata

Date	User
------	------

Entered: 10/2/2013 jay

Last modified: 1/26/2017 Anthro

IC actions:	Date	User	Action taken
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	10/2/2013	jay	Appended records from CCIC NADB database
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	1/26/2017	Anthro	JS
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Record status:

## Report Detail: ST-02222

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### Identifiers

Report No.: ST-02222

Other IDs:	Type	Name
	NADB-R	1362039

Cross-refs:

### Citation information

Author(s): Boer, D. and S. Melgard

Year: 1984

Title: Final Report: City of Modesto Historic Resources Inventory.

Affiliation: City of Modesto

No. pages:

No. maps:

Attributes: Architectural/Historical, Field study, Other research

Inventory size:

Disclosure: Unrestricted

Collections: No

### General notes

### Associated resources

Primary No.	Trinomial	Name
P-50-000591		Old Telephone Building; 1012 11
P-50-000592		Davis Home; 909 14th St.; Hatto
P-50-000593		Shalom Counseling Center (190
P-50-000594		Martin Ruddy Offices; 1015 14th
P-50-000595		Family Service Agency; The Ho
P-50-000596		The Black House (1917)
P-50-000597		Dino's Hair Stylists; Turner Hom
P-50-000598		Flesoras Home; Falk Residence
P-50-000599		Morgan Home; Lafayette Maddu
P-50-000602		James Apartment; The Boone H
P-50-000603		Office of Dr. Eastin; Moore Hom
P-50-000605		First United Methodist Church; 8
P-50-000606		Baird's Photographic Studio; Bro
P-50-000607		Law Offices of La Force and Du
P-50-000608		Stevens Home (1914)
P-50-000609		823 17th Street, Modesto (1917)
P-50-000610		Husband House; Cressey Home;
P-50-000614		Clinton Chapel African Methodist
P-50-000625		117 Achor Street, Modesto (192
P-50-000626		119 Achor Street, Modesto (192
P-50-000627		203 Achor Street, Modesto (192
P-50-000628		522 Adam Ave. Modesto (1922)
P-50-000629		529 Adam Ave., Modesto (1924)
P-50-000630		815 Alice St. (1940)
P-50-000631		816 Alice St. (1914)
P-50-000632		823 Alice St. (1918)
P-50-000633		915 Alice St. (1941)
P-50-000634		North Addition Wisecarver Tract
P-50-000635		616-618 Alice Street (1920)
P-50-000636		717 Alice Street (1920)
P-50-000638		112 Almond Ave., Modesto (192
P-50-000639		114 Almond Ave., Modesto (192
P-50-000640		117 Almonnd Ave., Modesto (19
P-50-000641		124 Almond Ave., Modesto (191
P-50-000642		125 Almond Ave., Modesto (191
P-50-000643		131 Almond Ave. (1924)

## Report Detail: ST-02222

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P-50-000644	139 Almond Ave. (1924)
P-50-000645	140 Almond Ave. (1914)
P-50-000655	1104 Arc Ave. (1923)
P-50-000656	1112 Arc Ave. (1940)
P-50-000657	1116 Arc Ave. (1940)
P-50-000658	1120 Arc Ave. (1940)
P-50-000659	1130 Arc Ave. (1940)
P-50-000705	133 Downy AVE
P-50-000706	137 Downy AVE
P-50-000709	129 E Morris AVE
P-50-000710	136 Morris AVE
P-50-000711	140 E Morris AVE
P-50-000722	115 Elmwood AVE
P-50-000731	201 Elmwood AVE
P-50-000735	207 Elmwood
P-50-000737	Dr. Donald Robertson Home; 21
P-50-000740	The Robertson Home, 215 Elmw
P-50-000743	218 Elmwood Avenue
P-50-000748	Ferlin House
P-50-000755	402 Elmwood AVE
P-50-000756	405 Elmwood AVE
P-50-000757	406 Elmwood AVE
P-50-000760	415 Elmwood AVE
P-50-000771	Bessie Eubanks Home
P-50-000783	115 Grant st
P-50-000784	117 Grant ST
P-50-000785	119 Grant ST
P-50-000786	131 Grant ST
P-50-000787	132 Grant ST
P-50-000788	138 Grant ST
P-50-000826	McHenry Museum; old McHenry
P-50-000827	121 Jones St.
P-50-000828	Whitehurst-Shannon Funeral Ho
P-50-000829	Law Offices of Louis and Martine
P-50-000831	The Martin Building; Masonic Te
P-50-000832	Lacondeguy's Restaurant
P-50-000833	
P-50-000834	
P-50-000835	
P-50-000836	
P-50-000837	129 Jones Street
P-50-000838	Herron House
P-50-000839	134 JONES STREET
P-50-000840	138 JONES STREET
P-50-000841	The Schmitz Home
P-50-000849	Priester Home
P-50-000850	117 Lee ST
P-50-000851	
P-50-000852	
P-50-000853	126 LEE STREET
P-50-000854	
P-50-000855	
P-50-000856	
P-50-000857	130 Lee ST
P-50-000858	144 Lee ST
P-50-000892	The Grange Company
P-50-000897	Hawke Castle; 115 Magnolia
P-50-000922	409 Magnolia Ave.
P-50-000925	417 Magnolia Ave.

## Report Detail: ST-02222

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P-50-000935	The Image Maker
P-50-000936	Culton's Refrigeration
P-50-000937	Café Decadence
P-50-000945	114 Modesto AVE
P-50-000958	611 Needham AVE
P-50-001026	131 Park Ave
P-50-001034	317 Park Ave
P-50-001062	303 Poplar Ave
P-50-001125	Norman S. West Home; 215 Sto
P-50-001126	The Stanley Home; 225 Stoddar
P-50-001145	Smith Home
P-50-001147	Surryhne House
P-50-001148	Dr. Cooper's House; J.M. Walth
P-50-001149	Tillson House; 124 Sycamore
P-50-001199	204 Virginia AVE
P-50-001204	224 Virginia AVE
P-50-001214	117 W Morris AVE

No. resources: 112

Has informals: No

### Location information

County(ies): Stanislaus

USGS quad(s): Riverbank, Salida

Address:

PLSS:

### Database record metadata

Date User

Entered: 10/2/2013 jay

Last modified: 11/12/201 Anthro

IC actions: Date User

10/2/2013 jay

Action taken

Appended records from CCIC NADB database

Record status:

## Report Detail: ST-02759

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### Identifiers

Report No.: ST-02759

Other IDs: 

Type	Name
NADB-R	1366256

Cross-refs: Extends into another county as ME-02759  
Extends into another county as SJ-02759

### Citation information

Author(s): Hatoff, B., B. Voss, S. Waechter, S. Wee, and V. Bente

Year: 1995 (Jul)

Title: Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project.

Affiliation: Woodward-Clyde Consultants; for Mojave Pipeline Company

No. pages: 49

No. maps:

Attributes: Archaeological, Field study, Literature search, Other research

Inventory size: 5558 Acres

Disclosure: Not for publication

Collections: No

### General notes

Report excerpts only

### Associated resources

Primary No.	Trinomial	Name
P-24-000085	CA-MER-000448H	Koff Lateral
P-24-000086	CA-MER-000454H	Hartley Lateral
P-24-000087		LG-17
P-24-000088		Main Ashe Lateral/Inverted Siph
P-24-000089		Unnamed Canal LG-19
P-24-000090		Canal Creek
P-24-000091		Buhach Lateral
P-24-000092		Atwater Canal
P-24-000093		Arena Canal
P-24-000094		Highline Canal (TID)
P-24-000095		Lateral 6 TID
P-24-000096		Farmdale Lateral
P-24-000097		Southern Pacific Railroad line
P-24-000110	CA-MER-000009	
P-39-000064	CA-SJO-000260	MNM-5
P-39-000065	CA-SJO-000261H	MNM-7H
P-39-000074	CA-SJO-000102/H	
P-39-000075	CA-SJO-000100	
P-39-000076	CA-SJO-000027	Schenck-Dawson #27
P-39-000077	CA-SJO-000122	
P-39-000078		DG-43
P-39-000079		DG-44
P-39-000080		DG-48
P-39-000081		SW-42
P-39-000082		SW-43
P-39-000083		SW-51
P-39-000084		SW-52
P-39-000085		SW-53
P-39-000086		Lateral 3 West, Banta-Carbona I
P-39-000087		Banta-Carbona Canal; JJ-5
P-39-000088		Lateral 5 West, Banta Carbona I
P-39-000089		Delta Mendota Canal
P-39-000090		California Aqueduct
P-39-000091		SW-47

## Report Detail: ST-02759

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P-39-000092		SW-46
P-39-000093		SW-45
P-39-000094		Canal V, South San Joaquin Irrig
P-39-000095		Canal T, South San Joaquin Irrig
P-39-000096		Canal R, South San Joaquin Irrig
P-39-000097		Temple Creek
P-39-000098	CA-SJO-000292H	Western Pacific Railroad / Union
P-39-000099		Canal T and Drainage Canal, So
P-39-000100		Bellota Branch Line of the Stockt
P-39-000101		SW-41
P-39-000102		Canal R, South San Joaquin Irrig
P-39-000103		Drainage Ditch, South San Joaq
P-39-000104		Upper Main Canal, West Side Irr
P-39-000105		LG-57
P-39-000106	CA-SJO-000284H	Tracy Depot Site
P-39-000107		Tracy Station Site
P-39-000108		(Unnamed) Storm Drainage Can
P-39-000109		Reclamation District 2075
P-39-000112	CA-SJO-000293H	Atchison, Topeka & Santa Fe Ra
P-50-000063	CA-STA-000388H	Passalaqua House (remains)
P-50-000070		Concrete Foundation; "LG-27"
P-50-000071		TID Lateral # 2 1/2 (upper and lo
P-50-000072		TID Laterals No. 3, Upper Latera
P-50-000073	CA-STA-000426H	TID Ceres Main Canal; TID Low
P-50-000074		San Joaquin Pipelines #1 and #2
P-50-000075		M.I.D. Lateral No. 6
P-50-000076		SW-49
P-50-000077		Lateral 8, Modesto Irrigation Distr
P-50-000078		Lateral 4, Modesto Irrigation Distr
P-50-000079		Unnamed underground canal, M
P-50-000080	CA-STA-000427H	M.I.D. Lateral No. 3
P-50-000083	CA-STA-000425H	Tidewater-Southern Railroad line

No. resources: 66

Has informals: No

### Location information

County(ies): Stanislaus

USGS quad(s): Arena, Atwater, Ceres, El Nido, Lathrop, Lockeford, Manteca, Merced, Ripon, Riverbank, Salida, Stockton East, Stockton West, Tracy, Turlock, Vernalis, Waterloo, Westley

Address:

PLSS:

### Database record metadata

Date User

Entered: 10/2/2013 jay

Last modified: 2/22/2017 Anthro

IC actions: Date User Action taken

10/2/2013 jay Appended records from CCIC NADB database

Record status:

# Report Detail: ST-02801

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## Identifiers

Report No.: ST-02801

Other IDs:	Type	Name
	NADB-R	1362322

Cross-refs:

## Citation information

Author(s): Marvin, Judith and Shelly Davis-King

Year: 1996 (Mar)

Title: Historic Property Survey Report (Positive) for the Seventh Street Bridge Project, City of Modesto, Stanislaus County, California.

Affiliation: Judith Marvin and Shelly Davis-King

No. pages: 56

No. maps:

Attributes: Archaeological, Architectural/Historical, Field study

Inventory size: 12 Acres

Disclosure: Not for publication

Collections: No

## General notes

### Associated resources

No. resources: 0

Has informals: No

### Location information

County(ies): Stanislaus

USGS quad(s): Ceres, Riverbank

Address:

PLSS:

### Database record metadata

Date	User
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Entered: 10/2/2013	jay
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Last modified: 2/13/2017	Anthro
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IC actions:	Date	User	Action taken
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	10/2/2013	jay	Appended records from CCIC NADB database
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	2/13/2017	Anthro	JS
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Record status:



## Report Detail: ST-02848

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### Identifiers

Report No.: ST-02848

Other IDs:	Type	Name
	NADB-R	1362239

Cross-refs:

### Citation information

Author(s): Fernandez, T.

Year: 1996 (Aug)

Title: Cultural Resources Inventory Report for the City of Modesto John Thurman Field Expansion Project

Affiliation: Jones & Stokes Associates, Inc.

No. pages: 18

No. maps:

Attributes: Archaeological, Field study

Inventory size: 35 Acres

Disclosure: Not for publication

Collections: No

### General notes

#### Associated resources

Primary No.	Trinomial	Name
P-50-000084	CA-STA-000393H	Thurman Field Scatter

No. resources: 1

Has informals: No

#### Location information

County(ies): Stanislaus

USGS quad(s): Brush Lake, Ceres

Address:

PLSS:

#### Database record metadata

Date	User
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Entered: 10/2/2013 jay

Last modified: 1/26/2017 Anthro

IC actions:	Date	User	Action taken
	10/2/2013	jay	Appended records from CCIC NADB database
	1/26/2017	Anthro	JS

Record status:

## Report Detail: ST-02930

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### Identifiers

Report No.: ST-02930

Other IDs:	Type	Name
	NADB-R	1366249

Cross-refs: Extends into another county as ME-02930  
Extends into another county as SJ-02930

### Citation information

Author(s): Jensen, Peter

Year: 1996 (Dec)

Title: Archaeological Inventory Survey; Tracy to Fresno Longhaul Fiberoptics Data Transmission Line, Portions of Fresno, Madera, Merced, Stanislaus, and San Joaquin Counties, California.

Affiliation: Jensen & Associates; prepared for North State Resources, Inc.

No. pages: 39

No. maps:

Attributes: Archaeological, Field study, Literature search

Inventory size:

Disclosure: Not for publication

Collections: No

### General notes

#### Associated resources

Primary No.	Trinomial	Name
P-39-000088		Lateral 5 West, Banta Carbona I
P-39-000098	CA-SJO-000292H	Western Pacific Railroad / Union
P-39-000104		Upper Main Canal, West Side Irr

No. resources: 3

Has informals: No

#### Location information

County(ies): Stanislaus

USGS quad(s): Atwater, Brush Lake, Ceres, Cressey, Denair, Le Grand, Merced, Midway, Plainsburg, Planada, Ripon, Riverbank, Salida, Tracy, Turlock, Vernalis, Westley, Winton

Address:

PLSS:

#### Database record metadata

Date	User
------	------

Entered: 10/2/2013 jay

Last modified: 7/19/2016 Anthro

IC actions:	Date	User	Action taken
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10/2/2013 jay Appended records from CCIC NADB database

12/10/201 EGreathou eg

Record status:

# Report Detail: ST-03747

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## Identifiers

Report No.: ST-03747

Other IDs:	Type	Name
	NADB-R	1364055

Cross-refs:

## Citation information

Author(s): Werner, Roger

Year: 1999 (Dec)

Title: Letter Report: Cultural Resources Survey, Proposed Bank Erosion Protection in Dry Creek, Modesto, California.

Affiliation: ASI Archaeology and Cultural Resources Management

No. pages: 14

No. maps:

Attributes: Archaeological, Field study

Inventory size: ca. 0.12 Miles

Disclosure: Not for publication

Collections: No

## General notes

### Associated resources

No. resources: 0

Has informals: No

### Location information

County(ies): Stanislaus

USGS quad(s): Riverbank

Address:

PLSS:

### Database record metadata

Date	User
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Entered: 10/2/2013	jay
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Last modified: 2/13/2017	Anthro
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IC actions:	Date	User	Action taken
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	10/2/2013	jay	Appended records from CCIC NADB database
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	2/13/2017	Anthro	JS
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Record status:

## Report Detail: ST-03878

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### Identifiers

Report No.: ST-03878

Other IDs:	Type	Name
	NADB-R	1364060
	Other	82711

Cross-refs:

### Citation information

Author(s): Wilson, Kenneth L.

Year: 1977

Title: Archaeological Reconnaissance Report of the City of Modesto's Primary Treatment Plant Improvements.

Affiliation: Archaeology Study Center, CSU Sacramento

No. pages:

No. maps:

Attributes:

Inventory size: 20 Acres

Disclosure:

Collections:

### General notes

#### Associated resources

No. resources: 0

Has informals: No

#### Location information

County(ies): Stanislaus

USGS quad(s): Brush Lake

Address:

PLSS:

#### Database record metadata

Date	User
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Entered: 10/2/2013 jay

Last modified:

IC actions:	Date	User	Action taken
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10/2/2013 jay

Appended records from CCIC NADB database

Record status:

## Report Detail: ST-03882

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### Identifiers

Report No.: ST-03882

Other IDs:	Type	Name
	NADB-R	1363740

Cross-refs:

### Citation information

Author(s): Anonymous

Year:

Title: Modesto Auto Dealers History; Background of the Griswald and Wight Ford Dealership (9th and L Streets)(1122 10th Street)

Affiliation:

No. pages: 89

No. maps:

Attributes: Other research

Inventory size:

Disclosure: Not for publication

Collections: No

### General notes

### Associated resources

No. resources: 0

Has informals: No

### Location information

County(ies): Stanislaus

USGS quad(s): Riverbank

Address:

PLSS:

### Database record metadata

Date	User
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Entered: 10/2/2013	jay
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Last modified: 2/27/2017	Anthro
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IC actions:	Date	User	Action taken
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	10/2/2013	jay	Appended records from CCIC NADB database
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	2/27/2017	Anthro	JS
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Record status:

## Report Detail: ST-03995

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### Identifiers

Report No.: ST-03995

Other IDs: 

Type	Name
NADB-R	1363956

Cross-refs: Extends into another county as ME-03995  
Extends into another county as SJ-03995

### Citation information

Author(s): Nelson, W. J.

Year: 2000 (Jun)

Title: Cultural Resources Survey for the Level (3) Communications Long Haul Fiber Optics Project; Segment WS04: Sacramento to Bakersfield.

Affiliation: Far Western Anthropological Research Group, Inc.; for Parsons, Brinckerhoff Network Services

No. pages: 128

No. maps:

Attributes: Archaeological, Architectural/Historical, Field study

Inventory size: 280.2 Miles

Disclosure: Not for publication

Collections: No

### General notes

The original copies of the Tables pages are poor as over the years clients have replaced them with copies.

### Associated resources

Primary No.	Trinomial	Name
P-39-000002	CA-SJO-000250H	Southern Pacific Railroad in San
P-39-000354	CA-SJO-000241H	Permanente Metals Corp. Magn
P-50-000001	CA-STA-000350H	Southern Pacific Railroad line
P-50-000439		W. H. Breshears, Inc., Chevron
P-50-000619		Modesto Southern Pacific Railw
P-50-001923	CA-STA-000420H	1930s Domestic Trash Dump

No. resources: 6

Has informals: No

### Location information

County(ies): Stanislaus

USGS quad(s): Arena, Atwater, Ceres, Cressey, Denair, Galt, Lathrop, Le Grand, Lodi North, Lodi South, Manteca, Merced, Plainsburg, Planada, Ripon, Riverbank, Salida, Stockton West, Turlock

Address:

PLSS:

### Database record metadata

Date	User
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Entered: 10/2/2013 jay

Last modified: 7/19/2016 Anthro

IC actions:	Date	User	Action taken
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10/2/2013 jay Appended records from CCIC NADB database

Record status:

# Report Detail: ST-04296

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## Identifiers

Report No.: ST-04296

Other IDs:	Type	Name
	NADB-R	1364208

Cross-refs:

## Citation information

Author(s): Amaglio, S.

Year: 2001

Title: Letter Report: City of Modesto, Wastewater Treatment Plant Project, FEMA-1155-DR-CA, DSR #39261

Affiliation: Federal Emergency Management Agency

No. pages:

No. maps:

Attributes:

Inventory size: 0.25 Acres

Disclosure:

Collections: No

## General notes

### Associated resources

No. resources: 0

Has informals: No

### Location information

County(ies): Stanislaus

USGS quad(s): Brush Lake

Address:

PLSS:

### Database record metadata

Date	User
------	------

Entered: 10/2/2013	jay
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Last modified: 8/18/2014	Anthro
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IC actions:	Date	User	Action taken
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	10/2/2013	jay	Appended records from CCIC NADB database
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Record status:

# Report Detail: ST-04592

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## Identifiers

Report No.: ST-04592

Other IDs:	Type	Name
	NADB-R	1364504

Cross-refs:

## Citation information

Author(s): Gatlin, J. P., General Attorney

Year: 2000 (Feb)

Title: Before the Surface Transportation Board: Docket No. AB-33 (Sub-No. 145X), Union Pacific Railroad Co.-- Abandonment Exemption--in Stanislaus Co., CA (Tidewater Subdivision Near Modesto, California), Combined Environmental and Historic Report.

Affiliation: Union Pacific Railroad Company

No. pages: 59

No. maps:

Attributes: Management/planning, Other research

Inventory size:

Disclosure: Not for publication

Collections: No

## General notes

### Associated resources

Primary No.	Trinomial	Name
P-50-000083	CA-STA-000425H	Tidewater-Southern Railroad line

No. resources: 1

Has informals: No

### Location information

County(ies): Stanislaus

USGS quad(s): Salida

Address:	Address	City	Assessor's parcel no.	Zip code
		Modesto, Ca		

PLSS:

### Database record metadata

Date	User
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Entered: 10/2/2013 jay

Last modified: 2/20/2017 Anthro

IC actions:	Date	User	Action taken
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10/2/2013 jay Appended records from CCIC NADB database

Record status:



# Report Detail: ST-04760

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## Identifiers

Report No.: ST-04760

Other IDs:	Type	Name
	NADB-R	1364670

Cross-refs:

## Citation information

Author(s): LSA Associates, Inc.

Year: 2002 (Oct)

Title: Draft Mitigated Negative Declaration: Ninth Street Bridge Replacement, City of Modesto.

Affiliation: LSA Associates, Inc.; for City of Modesto

No. pages: 49

No. maps:

Attributes: Archaeological, Architectural/Historical, Management/planning, Other research

Inventory size:

Disclosure: Unrestricted

Collections: No

## General notes

### Associated resources

No. resources: 0

Has informals: No

### Location information

County(ies): Stanislaus

USGS quad(s): Riverbank

Address:	Address	City	Assessor's parcel no.	Zip code
	9th St. where it crosses Tuolumne River, from B St. to 100 meters south of River Rd.			

PLSS:

### Database record metadata

Date	User
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Entered: 10/2/2013 jay

Last modified: 2/15/2017 Anthro

IC actions:	Date	User	Action taken
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10/2/2013 jay Appended records from CCIC NADB database

2/15/2017 Anthro JS

Record status:

## Report Detail: ST-04816

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### Identifiers

Report No.: ST-04816

Other IDs:	Type	Name
	NADB-R	1364730

Cross-refs:

### Citation information

Author(s): William Self Associates

Year: 2001 (Jan)

Title: Cultural Resources Assessment Report, Tuolumne River Regional Park Master Plan EIR, Stanislaus County,

Affiliation: William Self Associates

No. pages: 61

No. maps:

Attributes: Archaeological, Architectural/Historical, Field study, Literature search

Inventory size: ca. 115 Acres

Disclosure: Not for publication

Collections: No

### General notes

#### Associated resources

Primary No.	Trinomial	Name
P-50-000083	CA-STA-000425H	Tidewater-Southern Railroad line
P-50-000084	CA-STA-000393H	Thurman Field Scatter
P-50-000438		Lion's Market; Sander's Bros. M
P-50-000439		W. H. Breshears, Inc., Chevron
P-50-000617		Bridge #38C-23; Lion Bridge; Se
P-50-001811		Tuolumne River Bridge (BURNE

No. resources: 6

Has informals: No

#### Location information

County(ies): Stanislaus

USGS quad(s): Ceres, Riverbank

Address:

PLSS:

#### Database record metadata

Date	User
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Entered: 10/2/2013 jay

Last modified: 2/15/2017 Anthro

IC actions:	Date	User	Action taken
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10/2/2013 jay Appended records from CCIC NADB database

2/15/2017 Anthro JS

Record status:

## Report Detail: ST-04849

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### Identifiers

Report No.: ST-04849

Other IDs: 

Type	Name
NADB-R	1364773

Cross-refs: See also ME-04849

### Citation information

Author(s): Creighton, W.

Year: 2002

Title: Clamper: Documentation of Monuments and Plaques Representing Estanislao Chapter No. 58 E Clampus Vitus.

Affiliation: W. Creighton, student, CSU Stanislaus

No. pages: 51

No. maps:

Attributes: Architectural/Historical, Other research

Inventory size: NA

Disclosure: Unrestricted

Collections: No

### General notes

CSUS student project, inventory of monuments erected by Chapter 58 of E Clampus Vitus. Several have no associated Primary records or associated Primary numbers.

### Associated resources

Primary No.	Trinomial	Name
P-50-000219	CA-STA-000134	Indian Rock #1
P-50-000436		Riverbank Branch Library (River
P-50-000528		Tuolumne Gold Dredging Comp
P-50-000531		Architectural Resources of La Gr
P-50-000539		Louie's Place (1897)
P-50-000543		United States Post Office, 12th
P-50-000547		Empire City; CHL No. 418
P-50-000548		Adamsville
P-50-000575		Knights Ferry Mill; Stanislaus Flo
P-50-000577		Knights Ferry General Store
P-50-000578		Knights Ferry Hotel
P-50-000583		La Grange City Jail
P-50-001805		Gold Dredging Camp (Ghost To
P-50-002178		Modesto Cemeteries on Scenic

No. resources: 14

Has informals: No

### Location information

County(ies): Stanislaus

USGS quad(s): Brush Lake, Cooperstown, Copper Mountain, Escalon, Hornitos, Knights Ferry, La Grange, Newman, Oakdale, Patterson, Riverbank, Salida, Waterford, Westley, Winton

Address:

PLSS:

### Database record metadata

Date User

Entered: 10/2/2013 jay

Last modified: 12/18/201 rhard

IC actions: Date User Action taken

10/2/2013 jay Appended records from CCIC NADB database

6/19/2014 anthro Note added by RH

Record status:

## Report Detail: ST-05007

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### Identifiers

Report No.: ST-05007

Other IDs:	Type	Name
	NADB-R	1364893

Cross-refs:

### Citation information

Author(s): McClean, D.

Year: 1999 (Dec)

Title: California Department of Transportation Negative Historic Property Report and Negative Archaeological Survey Report for Ninth Street Bridge, in the City of Modesto, County of Stanislaus, California.

Affiliation: LSA Associates, Incorporated; for Caltrans District 10

No. pages: 14

No. maps:

Attributes: Archaeological, Architectural/Historical, Field study

Inventory size:

Disclosure: Not for publication

Collections: No

### General notes

### Associated resources

No. resources: 0

Has informals: No

### Location information

County(ies): Stanislaus

USGS quad(s): Ceres, Riverbank

Address:	Address	City	Assessor's parcel no.	Zip code
	9th St. at Tuolumne River	:Modesto		

PLSS:

### Database record metadata

Date	User
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Entered: 10/2/2013 jay

Last modified: 2/15/2017 Anthro

IC actions:	Date	User	Action taken
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10/2/2013 jay Appended records from CCIC NADB database

2/15/2017 Anthro JS

Record status:

## Report Detail: ST-05358

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### Identifiers

Report No.: ST-05358

Other IDs:	Type	Name
	NADB-R	1365238

Cross-refs:

### Citation information

Author(s): Windmiller, R. and D. S. Napoli

Year: 2003 (Jun)

Title: Archaeological Resources Inventory, Westside Service Center Project, Modesto, Stanislaus County, California.

Affiliation: Ric Windmiller, Consulting Archaeologist

No. pages: 44

No. maps:

Attributes: Archaeological, Evaluation, Field study

Inventory size: 1 Acres

Disclosure: Not for publication

Collections: No

### General notes

#### Associated resources

No. resources: 0

Has informals: No

#### Location information

County(ies): Stanislaus

USGS quad(s): Salida

Address:

PLSS:

#### Database record metadata

Date	User
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Entered: 10/2/2013	jay
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Last modified: 2/22/2017	Anthro
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IC actions:	Date	User	Action taken
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	10/2/2013	jay	Appended records from CCIC NADB database
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	2/22/2017	Anthro	JS
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Record status:

## Report Detail: ST-05574

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### Identifiers

Report No.: ST-05574

Other IDs:	Type	Name
	NADB-R	1365458

Cross-refs:

### Citation information

Author(s): Peak and Associates

Year: 2004 (Sep)

Title: Cultural Resources Assessment for the Outdoor Sports Adventure Project, City of Modesto, Stanislaus County, California.

Affiliation: Peak and Associates

No. pages: 21

No. maps:

Attributes: Archaeological, Field study

Inventory size: <10 Acres

Disclosure: Not for publication

Collections: No

### General notes

#### Associated resources

No. resources: 0

Has informals: No

#### Location information

County(ies): Stanislaus

USGS quad(s): Ceres

Address:

PLSS:

#### Database record metadata

Date	User
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Entered: 10/2/2013	jay
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Last modified: 1/27/2017	Anthro
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IC actions:	Date	User	Action taken
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	10/2/2013	jay	Appended records from CCIC NADB database
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	1/27/2017	Anthro	JS
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Record status:

# Report Detail: ST-06345

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## Identifiers

Report No.: ST-06345

Other IDs:	Type	Name
	NADB-R	1355577

Cross-refs: Extends into another county as ME-06345  
Extends into another county as SJ-06345

## Citation information

Author(s): SWCA Environmental Consultants

Year: 2006 (Dec)

Title: Cultural Resources Final Report of Monitoring and Findings for the QWest Network Construction Project, State of California. SWCA Project No. 10715-180.

Affiliation: SWCA Environmental Consultants; for Qwest Communications

No. pages: 345

No. maps:

Attributes: Archaeological, Architectural/Historical, Monitoring

Inventory size: 280.2 miles

Disclosure: Not for publication

Collections:

## General notes

### Associated resources

No. resources: 0

Has informals: No

### Location information

County(ies): Stanislaus

USGS quad(s): Arena, Atwater, Ceres, Cressey, Denair, El Nido, Galt, Lathrop, Lodi North, Lodi South, Manteca, Merced, Plainsburg, Riverbank, Salida, Stockton West, Turlock

Address:

PLSS:

### Database record metadata

Date	User
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Entered: 10/2/2013	jay
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Last modified: 8/23/2016	Anthro
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IC actions:	Date	User	Action taken
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	10/2/2013	jay	Appended records from CCIC NADB database
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Record status:

# Report Detail: ST-06352

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## Identifiers

Report No.: ST-06352

Other IDs:	Type	Name
	NADB-R	1366580

Cross-refs:

## Citation information

Author(s): EDAW, Inc.

Year: 2005 (Sep)

Title: TRRP Gateway Precise Plan, Modesto, Ceres, Stanislaus County, California, Initial Study.

Affiliation: EDAW, Inc.; for Tuolumne River Regional Park Commission and the City of Modesto

No. pages: 76

No. maps:

Attributes: Literature search, Management/planning, Other research

Inventory size: 500 Acres

Disclosure: Unrestricted

Collections: No

## General notes

Environmental Review Document

## Associated resources

No. resources: 0

Has informals: No

## Location information

County(ies): Stanislaus

USGS quad(s): Ceres, Riverbank

Address:	Address	City	Assessor's parcel no.	Zip code
		Modesto		

PLSS:

## Database record metadata

Date	User
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Entered: 10/2/2013 jay

Last modified: 12/9/2016 Anthro

IC actions:	Date	User	Action taken
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10/2/2013 jay Appended records from CCIC NADB database

Record status:



# Report Detail: ST-06775

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## Identifiers

Report No.: ST-06775

Other IDs:	Type	Name
	NADB-R	1367005

Cross-refs:

## Citation information

Author(s): Supernowicz, D. E.

Year: 2008 (Sep)

Title: Collocation ("CO") Submission Packet FCC Form 621, Project Name: "Downtown Modesto", Project Number: CA-9799; Cultural Resources Study of the Downtown Modesto Project AT & T Mobility Site No. CA-9799 Intersection of 10th & D Streets, Modesto, Stanislaus County, Ca 95354.

Affiliation: Historic Resource Associates; for Earth Touch, Inc.

No. pages: 59

No. maps:

Attributes: Archaeological, Architectural/Historical, Field study

Inventory size: 0.6 Acres

Disclosure: Not for publication

Collections: No

## General notes

Notes a ca. 1930's garage/warehouse/industrial bldg. adjacent to the water tower (used by Modesto Public Works Dept. as of 11/2016)

## Associated resources

Primary No.	Trinomial	Name
P-50-001999		City of Modesto Elevated Water

No. resources: 1

Has informals: No

## Location information

County(ies): Stanislaus

USGS quad(s): Riverbank

Address:	Address	City	Assessor's parcel no.	Zip code
	Intersection of 10th and D Streets	Modesto	106-046-001	

PLSS:

## Database record metadata

Date	User
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Entered: 10/2/2013 jay

Last modified: 2/17/2017 Anthro

IC actions:	Date	User	Action taken
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10/2/2013 jay Appended records from CCIC NADB database

2/17/2017 Anthro JS

Record status:

## Report Detail: ST-06777

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### Identifiers

Report No.: ST-06777

Other IDs:	Type	Name
	NADB-R	1367010

Cross-refs:

### Citation information

Author(s): Farnon, A.

Year: 2006

Title: Shackelford Neighborhood Infrastructure Improvements Project Modesto, California.

Affiliation: Stanislaus County

No. pages: 20

No. maps:

Attributes: Literature search, Other research

Inventory size: 0.41 Acres

Disclosure: Not for publication

Collections: No

### General notes

#### Associated resources

No. resources: 0

Has informals: No

#### Location information

County(ies): Stanislaus

USGS quad(s): Ceres

Address:

PLSS:

#### Database record metadata

Date	User
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Entered: 10/2/2013	jay
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Last modified: 1/27/2017	Anthro
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IC actions:	Date	User	Action taken
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	10/2/2013	jay	Appended records from CCIC NADB database
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	1/27/2017	Anthro	JS
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Record status:

## Report Detail: ST-06915

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### Identifiers

Report No.: ST-06915

Other IDs:	Type	Name
	NADB-R	1367207

Cross-refs:

### Citation information

Author(s): Gallo Winery

Year: 2009

Title: Historic Modesto: Gallo Winery- How it Began in 1933

Affiliation: historicmodesto.com Gallo Winery

No. pages: 17

No. maps:

Attributes: Other research

Inventory size: NA

Disclosure: Unrestricted

Collections: No

### General notes

### Associated resources

No. resources: 0

Has informals: No

### Location information

County(ies): Stanislaus

USGS quad(s): Riverbank

Address:

PLSS:

### Database record metadata

Date	User
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Entered: 10/2/2013	jay
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Last modified: 8/30/2016	EGreathouse
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IC actions:	Date	User	Action taken
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	10/2/2013	jay	Appended records from CCIC NADB database
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	8/30/2016	EGreathou	eg
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Record status:

## Report Detail: ST-07076

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### Identifiers

Report No.: ST-07076

Other IDs:	Type	Name
	NADB-R	1367390

Cross-refs:

### Citation information

Author(s): Peak, M. A. and N. J. Neuenschwander

Year: 2009 (Oct)

Title: An Evaluation of Pump Station Number 5, City of Modesto, California

Affiliation: Peak & Associates, Inc.

No. pages: 17

No. maps:

Attributes: Architectural/Historical, Evaluation

Inventory size: 1 Acres

Disclosure: Not for publication

Collections: No

### General notes

#### Associated resources

Primary No.	Trinomial	Name
P-50-002018		Modesto Pump Station Number

No. resources: 1

Has informals: No

#### Location information

County(ies): Stanislaus

USGS quad(s): Salida

Address:

PLSS:

#### Database record metadata

Date	User
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Entered: 10/2/2013 jay

Last modified: 2/24/2017 Anthro

IC actions:	Date	User	Action taken
	10/2/2013	jay	Appended records from CCIC NADB database
	2/24/2017	Anthro	JS

Record status:

## Report Detail: ST-07388

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### Identifiers

Report No.: ST-07388

Other IDs:	Type	Name
	NADB-R	1367737

Cross-refs:

### Citation information

Author(s): Higgins, J. E.

Year: 2010 (Nov)

Title: Submission Packet, FCC Form 621, for Proposal Collocation Project 1221 Sutter Avenue Modesto, Stanislaus County, CA. W. Hatch-Utistick/CN 1930 EBI Project Number: 61105429

Affiliation: EBI Consulting

No. pages: 96

No. maps:

Attributes: Management/planning, Other research

Inventory size: 1 Acres

Disclosure: Not for publication

Collections: No

### General notes

#### Associated resources

No. resources: 0

Has informals: No

#### Location information

County(ies): Stanislaus

USGS quad(s): Brush Lake

Address:

PLSS:

#### Database record metadata

Date	User
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Entered: 10/2/2013	jay
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Last modified: 1/26/2017	Anthro
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IC actions:	Date	User	Action taken
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	10/2/2013	jay	Appended records from CCIC NADB database
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	1/26/2017	Anthro	JS
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Record status:

# Report Detail: ST-07537

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## Identifiers

Report No.: ST-07537

Other IDs: Type	Name
NADB-R	1367890

Cross-refs:

## Citation information

Author(s): Kuzak, C.

Year: 2011 (Apr)

Title: Historic Property Survey Report, 10-STA-99, P.M. 0.0/24.7, 2576 E-FIS1000020344, Stanislaus County, California.

Affiliation: Caltrans District 10

No. pages: 81

No. maps:

Attributes: Archaeological, Architectural/historical, Field study, Management/planning

Inventory size: 24.8 Miles x 100 Feet

Disclosure: Not for publication

Collections: No

## General notes

CCIC copy is missing page 1 !!

## Associated resources

Primary No.	Trinomial	Name
P-50-002036		Street Property
P-50-002046		Dal Bianco Property
P-50-002047		Segars Property
P-50-002048		Interwest Industries Inc. Propert
P-50-002049		Garcia Property
P-50-002050		Brown Property
P-50-002051		Almarez Property, 2217 Strivens
P-50-002052		Soares Property, 2521 Strivens,
P-50-002053		Cabral Property, 2525 Strivens,
P-50-002054		Allen Property, 2529 Strivens, M
P-50-002055		Berry Property, 2533 Strivens, M
P-50-002056		Lopez Property, 2601 Strivens,

No. resources: 12

Has informals: No

## Location information

County(ies): Stanislaus

USGS quad(s): Ceres, Denair, Riverbank, Salida, Turlock

Address:

PLSS:

## Database record metadata

Date	User
------	------

Entered: 10/2/2013 jay

Last modified: 2/24/2016 rhards

IC actions: Date	User	Action taken
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10/2/2013 jay Appended records from CCIC NADB database

Record status:

## Report Detail: ST-07589

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### Identifiers

Report No.: ST-07589

Other IDs:	Type	Name
	NADB-R	1367951

Cross-refs:

### Citation information

Author(s): Wlodarski, R. J.

Year: 2012 (Jul)

Title: Collocation Submission Packet FCC Form 621, CVL01322, Downtown Modesto, 920 D Street, Stanislaus County, CA; Proposed AT & T Wireless Telecommunications Site CVL01322 (Downtown Modesto), 920 D. St..

Affiliation: CARE Cellular Archaeological Resource Evaluations; for ATC Associates

No. pages: 37

No. maps:

Attributes: Archaeological, Architectural/Historical, Field study

Inventory size: 1 Acres

Disclosure: Not for publication

Collections: No

### General notes

### Associated resources

Primary No.	Trinomial	Name
P-50-001999		City of Modesto Elevated Water

No. resources: 1

Has informals: No

### Location information

County(ies): Stanislaus

USGS quad(s): Riverbank

Address:	Address	City	Assessor's parcel no.	Zip code
	920 D St.	Modesto	106-046-001	

PLSS: T3S R9E Sec. 33 MDBM

### Database record metadata

Date	User
------	------

Entered: 10/2/2013 jay

Last modified: 2/20/2017 Anthro

IC actions:	Date	User	Action taken
	10/2/2013	jay	Appended records from CCIC NADB database
	2/20/2017	Anthro	JS

Record status:

## Report Detail: ST-07775

---

### Identifiers

Report No.: ST-07775

Other IDs:

Cross-refs:

### Citation information

Author(s): Helton, C. and Cardenas, G.

Year: 2011 (Feb)

Title: Cultural Resources Monitoring and Mitigation Plan, Almond 2 Power Plant, Turlock Irrigation District.

Affiliation: CH2MHILL

No. pages: 378

No. maps:

Attributes: Archaeological, Architectural/historical, Excavation, Field study

Inventory size: 25 Miles x 200 Feet

Disclosure: Not for publication

Collections: No

### General notes

### Associated resources

Primary No.	Trinomial	Name
P-50-000071		TID Lateral # 2 1/2 (upper and lo
P-50-000072		TID Laterals No. 3, Upper Latera
P-50-000073	CA-STA-000426H	TID Ceres Main Canal; TID Low
P-50-000083	CA-STA-000425H	Tidewater-Southern Railroad line
P-50-001927		TID Lateral #5/Lower Lateral #5
P-50-002114		IF-1
P-50-002115		IF-2
P-50-002116		IF-3
P-50-002117		TID Westport Drain
P-50-002118		TID Lateral No. 5 1/2
P-50-002119		TID Lower Lateral No. 4
P-50-002120		5242 Avenue A
P-50-002121		5336 Avenue D
P-50-002122		125 Cowan Street
P-50-002123		4019 Crows Landing Road
P-50-002124		4307 Crows Landing Road
P-50-002125		4443 Crows Landing Road
P-50-002126		4607 Crows Landing Road
P-50-002127		4619 Crows Landing Road
P-50-002128		4742 Crows Landing Road
P-50-002129		4886 Crows Landing Road
P-50-002130		5019 Crows Landing Road
P-50-002131		5237 Crows Landing Road
P-50-002132		5336 Crows Landing Road
P-50-002133		348 E. Grayson Road
P-50-002134		624 E. Service Road
P-50-002135		943 E. Grayson Road
P-50-002136		530 W. Grayson Road
P-50-002137		301 Lathrop Road
P-50-002138		401 Lathrop Road
P-50-002139		600 San Joaquin Ave.
P-50-002140		142 W. Service Road

No. resources: 32

Has informals: No

### Location information

County(ies): Stanislaus



## Report Detail: ST-07775

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USGS quad(s): Brush Lake, Ceres, Crows Landing, Hatch

Address:

PLSS:

### Database record metadata

*Date*      *User*

*Entered:* 10/23/201 anthro

*Last modified:* 12/8/2015 EGreathouse

*IC actions:*    *Date*      *User*      *Action taken*

12/8/2015 EGreathou eg

*Record status:*

# Report Detail: ST-07828

---

## Identifiers

Report No.: ST-07828

Other IDs:

Cross-refs:

## Citation information

Author(s): Billat, L.

Year: 2013 (Apr)

Title: Collocation Submission Packet, FCC Form 621, W Hatch-Utistick CNU1930, 1221 Sutter Avenue, Modesto, Stanislaus County, CA

Affiliation: EarthTouch, Inc.

No. pages: 52

No. maps:

Attributes: Management/planning, Other research

Inventory size: 1 Acres

Disclosure: Not for publication

Collections: No

## General notes

## Associated resources

No. resources: 0

Has informals: No

## Location information

County(ies): Stanislaus

USGS quad(s): Brush Lake

Address: Address

1221 Sutter Ave.

City

Modesto

Assessor's parcel no.

Zip code

PLSS:

## Database record metadata

Date User

Entered: 12/20/201 anthro

Last modified: 1/26/2017 Anthro

IC actions: Date User Action taken

1/26/2017 Anthro JS

Record status:

## Report Detail: ST-07946

---

### Identifiers

Report No.: ST-07946

Other IDs:

Cross-refs:

### Citation information

Author(s): Roland-Nawi, C.

Year: 2013 (Oct)

Title: Letter from SHPO to HQ California Army National Guard, RE: Modesto Field Maintenance Shop Renovation, 630 Rouse Avenue, Modesto, CA

Affiliation: CA State Office of Historic Preservation

No. pages: 10

No. maps:

Attributes: Architectural/Historical

Inventory size:

Disclosure: Not for publication

Collections: No

### General notes

Letter states National Guard Armory was determined ineligible for NRHP in 2003. No documentation on file at IC for this determination. Single story workshop building at Armory constructed in 1949. Not listed in HPDF.

### Associated resources

No. resources: 0

Has informals: Yes

### Location information

County(ies): Stanislaus

USGS quad(s): Brush Lake

Address: Address

630 Rouse Avenue

City

Modesto

Assessor's parcel no.

Zip code

PLSS:

### Database record metadata

Date User

Entered: 7/21/2014 anthro

Last modified: 1/26/2017 Anthro

IC actions: Date User Action taken

7/21/2014 anthro eag

1/26/2017 Anthro JS

Record status:

## Report Detail: ST-08208

---

### Identifiers

Report No.: ST-08208

Other IDs:

Cross-refs:

### Citation information

Author(s): Hoffman, R.

Year: 2015 (Feb)

Title: Historic Property Survey Report, CML 5059 (198) Westbound D Street to Northbound 9th Street (SR 132) Project, Modesto, Stanislaus County, California. Caltrans District 10, Stanislaus County, CR 111, PM 15.6-15.0, Federal Projecr # CML 5059 (198)

Affiliation: Caltrans

No. pages: 63

No. maps:

Attributes: Archaeological, Architectural/Historical, Field study

Inventory size: 5 acres

Disclosure: Not for publication

Collections: No

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Sub-desig.:

Author(s): Hoffman, R.

Year: 2015 (Feb)

Title: Archaeological Survey Report for the CML 5059 (198) Westbound D Street to Northbound 9th Street (SR 132) Project, Modesto, Stanislaus County, California. Caltrans District 10, Stanislaus County, CR 111, PM 15.6-15.0, Federal Projecr # CML 5059 (198)

Affiliation: Caltrans

Report type(s): Archaeological, Field study

Inventory size: ca 5 acres

No. pages: 52

Disclosure: Not for publication

Collections: No

PDF Pages: 12-63

### General notes

#### Associated resources

No. resources: 0

Has informals: No

#### Location information

County(ies): Stanislaus

USGS quad(s): Riverbank

Address: Address

D Street, 9th Street

City

Modesto

Assessor's parcel no.

Zip code

PLSS:

#### Database record metadata

Date User

Entered: 12/9/2015 EGreathouse

Last modified: 12/9/2015 EGreathouse

IC actions: Date User Action taken

12/9/2015 EGreathou eg

Record status:

## Resource Detail: P-50-000001

### Identifying information

*Primary No.:* P-50-000001

*Trinomial:* CA-STA-000350H

*Name:* Southern Pacific Railroad line

<i>Other IDs:</i>	<i>Type</i>	<i>Name</i>
	Other	Southern Pacific Railroad San Joaquin Valley Mainline
	Other	Stockton & Visalia Railroad
	Other	Stockton & Tulare Railroad
	Other	Southern Pacific Railroad West Side Line
	Other	Southern Pacific Railroad, Tracy Branch
	Other	San Joaquin Valley Railroad
	Resource Name	Southern Pacific Railroad line

*Cross-refs:* Extends into another county as 24-000097

Extends into another county as 39-000002

See also 39-005011

### Attributes

*Resource type:* Structure

*Age:* Historic

*Information base:* Survey, Analysis

*Attribute codes:* AH07 (Roads/trails/railroad grades) - Railroad grade; HP39 (Other) - Rail Line

*Disclosure:* Not for publication

*Collections:* No

*Accession no(s):*

*Facility:*

### General notes

This file includes various branches of the SP Railroad line in Stanislaus County. HPDF 6Y

### Recording events

<i>Date</i>	<i>Recorder(s)</i>	<i>Affiliation</i>	<i>Notes</i>
8/13/2007	Carey & Co.	Carey & Co.	
1/17/2008	N. Hosseinion	Dokken Engineering	
3/22/2009	P. Daly	Cultural Research Associates	S.P. RR San Joaquin Valley Mainline
11/26/2006	K. Haley	Jones & Stokes	S.P. RR San Joaquin Valley Mainline, south of Ceres, no UTM's; on HPDF
5/26/1993	J. Costello and J. Marvin	Foothill Resources, Ltd.	
2/26/2003	B. Larson and E. Johnson	JRP Historical Consulting Services	
7/7/1999	C. M. Francis	Francis Heritage Services	

### Associated reports

<i>Report No.</i>	<i>Year</i>	<i>Title</i>	<i>Affiliation</i>
AP-05501	2004	Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways; Volume III: Geoarchaeological Study.	Far Western Anthropological Research Group, Inc., et al.; for Caltrans District 10
CA-05498	2004	Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways; Volume I: Summary of Methods and Findings.	Far Western Anthropological Research Group, Inc. (and) JRP Historical Consulting; prepared for Caltrans District 10
ME-03995	2000	Cultural Resource Survey for the Level (3) Communications Long Haul Fiber Optics Project; Segment WS04: Sacramento to Bakersfield.	Far Western Anthropological Research Group, Inc., for Parsons Brinckerhoff Network Services
SJ-03995	2000	Cultural Resource Survey for the Level (3) Communications Long Haul Fiber Optics Project; Segment WS04: Sacramento to	Far Western Anthropological Research Group, Inc.; for Parsons, Brinckerhoff Network Services

## Resource Detail: P-50-000001

		Bakersfield	
SJ-06625	1998	Cultural Resources Survey, South County Surface Water Project, San Joaquin County, California, South San Joaquin Irrigation District	ASI Archaeology and Cultural Resource Management (prepared for Environmental Science Associates, Inc.)
SJ-06878	2008	San Joaquin Pipeline System Project, Draft EIR, San Francisco Planning Department Case No. 2007.0118E, State Clearinghouse No. 2007032138	San Francisco Planning Department
SJ-07527	2009	San Joaquin Pipeline System Project, Historic Resources Inventory and Evaluation Report.	Carey & Co., Inc.
ST-03382	1995	Historic Property Survey Report, Oakdale Bypass Project, State Route 120, Stanislaus County, California, 10-STA-120, P.M. 3.0/12.9, 10-345400.	Parsons Brinckerhoff Quade and Douglas, Inc. and Caltrans District 10
ST-03390	1995	Historical Study Report for the Oakdale Bypass Project, Stanislaus County, California: 10-STA-120, PM 3.0/R12.9, EA 10-345400.	Caltrans Environmental Program- Sacramento
ST-03393	1994	Final Report; Archaeological Survey Report for the SR-120 Oakdale Bypass Interchange Improvement Project Alternatives 1, 2A, 2B, 2C, and 2D; Near Oakdale, Stanislaus County, California, 10-STA-120-3.0/R12.9, EA 10-345400.	Biosystems Analysis, Inc.; for Parsons Brinckerhoff Quade and Douglas (and) Caltrans District 10
ST-03639	1999	Archaeological and Historical Survey Report for a Proposed Road Widening Project of Albers Road, Stanislaus County, California.	Francis Heritage Services
ST-03995	2000	Cultural Resources Survey for the Level (3) Communications Long Haul Fiber Optics Project; Segment WS04: Sacramento to Bakersfield.	Far Western Anthropological Research Group, Inc.; for Parsons, Brinckerhoff Network Services
ST-05498	2004	Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways; Volume I: Summary of Methods and Findings.	Far Western Anthropological Research Group, Inc.; for Caltrans District 10
ST-05501	2004	Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways; Volume III: Geoarchaeological Study	Far Western Anthropological Research Group, Inc.; for Caltrans District 10
ST-05502	2004	Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways; Volume II G: Stanislaus County.	Far Western Anthropological Group, Inc. et al.; for Caltrans District 10
ST-06446	2006	Cultural Resources Assessment for the Turlock Irrigation District's Regional Water Supply Project, County of Stanislaus, California.	Peak & Associates, Inc.; for EIP Associates
ST-06477	2006	State Route 99/Mitchell Road/Service Road Interchange Reconstruction, Historic Property Survey Report (Includes Historical Resources Evaluation Report and Archaeological Survey Report), Ceres, CA, 10-STA-99 KP15.6-17.5 (PM 9.7-10.9)	Jones & Stokes; for Caltrans District 10
ST-06625	1998	Cultural Resources Survey, South County Surface Water Project, San Joaquin County, California, South San Joaquin Irrigation District.	ASI Archaeology and Cultural Resource Management
ST-06878	2008	San Joaquin Pipeline System Project, Draft EIR, San Francisco Planning Department Case No. 2007.0118E, State Clearinghouse No. 2007032138.	San Francisco Planning Department for the Public Utilities Commission
ST-06977	2009	Cultural Resources Inventory for the Hughson-Grayson 115kV Transmission Line and Substation Project in Stanislaus County, California.	Cultural Research Associates; for Parus Consulting
ST-07244	2007	North County Corridor Environmental Constraints Analysis: Cultural Resources.	Far Western A.R.G, Inc.& JRP Historical Consulting; for Circle Point and Stanislaus Council of Governments
ST-07387	2010	Patterson General Plan Update: Archaeological	Far Western and Foothill Resources

## Resource Detail: P-50-000001

Resources Sensitivity		
ST-07527	2009	San Joaquin Pipeline System Project, Historic Resources Inventory and Evaluation Report. Carey & Co., Inc.
ST-07586	2009	Historic Property Survey Report, 10-STA-99, P.M. 21.0/22.4, EA 10-472100 (State Route 99/Pelandale Avenue Interchange Reconstruction Project). [Also includes ASR (M. Campbell, 12/08) and HRER (N. Hosseinion, 4/09)]. Dokken Engineering, for Caltrans District 10
ST-08341	2014	Historic Property Survey Report North Valley Regional Recycled Water Program (NVRWWP) Vicinity of Patterson, Stanislaus County Basin Research Associates for U.S. Department of the Interior Bureau Reclamation and RMC Water and Environment
TO-06878	2008	San Joaquin Pipeline System Project, Draft EIR, San Francisco Planning Department Case No. 2007.0118E, State Clearinghouse No. 2007032138 San Francisco Planning Department
TO-07527	2009	San Joaquin Pipeline System Project, Historic Resources Inventory and Evaluation Report Carey & Co., Inc.

### Location information

*County:* Stanislaus

*USGS quad(s):* Ceres, Escalon, Farmington, Oakdale, Patterson, Peters, Salida, Solyo, Stockton West, Westley

*Address:*

*PLSS:* T4S R9E SE¼ of SW¼ of Sec. 24 MDBM  
 T4S R9E SE¼ of SW¼ of Sec. 25 MDBM  
 T2S R10E SE¼ of NE¼ of Sec. 10 MDBM  
 T1N R6E Sec. MDBM  
 T3S R8E NE¼ of Sec. 14 MDBM  
 T3S R8E SE¼ of Sec. 3 MDBM  
 T3S R8E NE¼ of NE¼ of Sec. 10 MDBM

*UTMs:* Zone 10 682740mE 4159923mN NAD27 (San Joaquin Valley Mainline)  
 Zone 10 683029mE 4159611mN NAD27  
 Zone 10 689180mE 4183060mN NAD27  
 Zone 10 651780mE 4202230mN NAD27  
 Zone 10 671810mE 4172105mN NAD27  
 Zone 10 669862mE 4174648mN NAD27  
 Zone 10 689180mE 4183060mN NAD83  
 Zone 10 651780mE 4202230mN NAD83

### Management status

#### Database record metadata

*Date User*

*Entered:* 7/16/2010 ccic-admin

*Last modified:* 3/3/2015 anthro

*IC actions:* *Date User Action taken*

11/19/201 Anthro I.R

*Record status:*

## Resource Detail: P-50-000083

---

### Identifying information

*Primary No.:* P-50-000083

*Trinomial:* CA-STA-000425H

*Name:* Tidewater-Southern Railroad line

<i>Other IDs:</i>	<i>Type</i>	<i>Name</i>
	Resource Name	Tidewater-Southern Railroad line
	Other	Union Pacific Railroad (1987 to present)
	Other	Segment of the Tidewater Southern Railroad
	Other	UP-1, UP-2

*Cross-refs:* Extends into another county as 39-000015

### Attributes

*Resource type:* Structure

*Age:* Historic

*Information base:* Survey

*Attribute codes:* AH07 (Roads/trails/railroad grades) - Tidewater-Southern Railroad line; HP39 (Other) - Railroad line

*Disclosure:* Not for publication

*Collections:* No

*Accession no(s):*

*Facility:*

### General notes

### Recording events

<i>Date</i>	<i>Recorder(s)</i>	<i>Affiliation</i>	<i>Notes</i>
8/13/2007	Carey & Co.	Carey & Co.	
3/16/2009	Lawson	CH2M HILL	
3/20/2009	Pamela Daly	Cultural Research Assoc.	
9/20/2002	James J. Sharpe	CH2M HILL	
1/1/1994	JRP	JRP	

### Associated reports

<i>Report No.</i>	<i>Year</i>	<i>Title</i>	<i>Affiliation</i>
AP-05501	2004	Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways; Volume III: Geoarchaeological Study.	Far Western Anthropological Research Group, Inc., et al.; for Caltrans District 10
CA-05498	2004	Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways; Volume I: Summary of Methods and Findings.	Far Western Anthropological Research Group, Inc. (and) JRP Historical Consulting; prepared for Caltrans District 10
ME-02759	1995	Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project; Final Report, Volume 1, excerpts only	Woodward Clyde Associates; for Mojave Pipeline Company
SJ-02759	1995	Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project, Final.	Woodward Clyde Consultants (prepared for Mojave Pipeline Company)
SJ-07171	2009	Proposed Abandonment of the McHenry Industrial Lead from Milepost 21.25 near Escalon to Milepost 26.43 near McHenry, a total distance of 5.18 miles in San Joaquin and Stanislaus Counties, California; STB Docket No. AB-33 (Sub-No.278X).	Union Pacific Railroad Law Department; for California State Historic Preservation Office
SJ-07527	2009	San Joaquin Pipeline System Project, Historic Resources Inventory and Evaluation Report.	Carey & Co., Inc.
ST-02759	1995	Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project.	Woodward-Clyde Consultants; for Mojave Pipeline Company
ST-04592	2000	Before the Surface Transportation Board: Docket No. AB-33 (Sub-No. 145X), Union Pacific Railroad Co.--Abandonment	Union Pacific Railroad Company



## Resource Detail: P-50-000083

		Exemption--in Stanislaus Co., CA (Tidewater Subdivision Near Modesto, California), Combined Environmental and Historic Report.	
ST-04816	2001	Cultural Resources Assessment Report, Tuolumne River Regional Park Master Plan EIR, Stanislaus County, California.	William Self Associates
ST-05498	2004	Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways; Volume I: Summary of Methods and Findings.	Far Western Anthropological Research Group, Inc.; for Caltrans District 10
ST-05501	2004	Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways; Volume III: Geoarchaeological Study	Far Western Anthropological Research Group, Inc.; for Caltrans District 10
ST-05502	2004	Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways; Volume II G: Stanislaus County.	Far Western Anthropological Group, Inc. et al.; for Caltrans District 10
ST-06101	2004	Cultural Resources Assessment for the Meritage Project, City of Modesto, Stanislaus County, California	Peak & Associates, Inc.
ST-06269	2003	Cultural Resource Management Report, Walnut Energy Center, Stanislaus County, California	CH2M HILL
ST-06977	2009	Cultural Resources Inventory for the Hughson-Grayson 115kV Transmission Line and Substation Project in Stanislaus County, California.	Cultural Research Associates; for Parus Consulting
ST-07171	2009	Proposed Abandonment of the McHenry Industrial Lead from Milepost 21.25 near Escalon to Milepost 26.43 near McHenry, a total distance of 5.18 miles in San Joaquin and Stanislaus Counties, California; STB Docket No. AB-33 (Sub-No. 278X)	Union Pacific Railroad
ST-07527	2009	San Joaquin Pipeline System Project, Historic Resources Inventory and Evaluation Report.	Carey & Co., Inc.
ST-07775	2011	Cultural Resources Monitoring and Mitigation Plan, Almond 2 Power Plant, Turlock Irrigation District.	CH2MHILL
TO-07527	2009	San Joaquin Pipeline System Project, Historic Resources Inventory and Evaluation Report	Carey & Co., Inc.

### Location information

County: Stanislaus

USGS quad(s): Ceres, Hatch, Riverbank, Salida, Turlock

Address: Address	City	Assessor's parcel no.	Zip code
	Turlock		
	Modesto		
	Ceres		

PLSS: T3S R9E N½ of Sec. 8 MDBM  
 T4S R9E Sec. 4 MDBM  
 T4S R9E Sec. 9 MDBM  
 T4S R9E Sec. 16 MDBM  
 T4S R9E NE¼ of NW¼ of Sec. 21 MDBM

UTMs: Zone 10 685444mE 4150979mN NAD27  
 Zone 10 676023mE 4173758mN NAD27  
 Zone 10 677991mE 4160357mN NAD83 (A)  
 Zone 10 677982mE 4160561mN NAD83 (B)  
 Zone 10 685444mE 4150979mN NAD83

### Management status

## Resource Detail: P-50-000083

---

### Database record metadata

*Date*      *User*  
*Entered:* 8/26/2010 ccic-admin  
*Last modified:* 3/3/2015 anthro  
*IC actions:* *Date*      *User*      *Action taken*  
                  10/22/201 Anthro      I.R  
*Record status:*

## Resource Detail: P-50-000084

---

### Identifying information

Primary No.: P-50-000084

Trinomial: CA-STA-000393H

Name: Thurman Field Scatter

Other IDs: 

Type	Name
Resource Name	Thurman Field Scatter

Cross-refs:

### Attributes

Resource type: Site

Age: Historic

Information base: Survey

Attribute codes: AH16 (Other)

Disclosure: Not for publication

Collections:

Accession no(s):

Facility:

### General notes

### Recording events

Date	Recorder(s)	Affiliation	Notes
8/1/1996	T. Fernandez	Jones & Stroke Associates, Inc	

### Associated reports

Report No.	Year	Title	Affiliation
ST-02848	1996	Cultural Resources Inventory Report for the City of Modesto John Thurman Field Expansion Project	Jones & Stokes Associates, Inc.
ST-04816	2001	Cultural Resources Assessment Report, Tuolumne River Regional Park Master Plan EIR, Stanislaus County, California.	William Self Associates

### Location information

County: Stanislaus

USGS quad(s): Ceres

Address:

PLSS: T4S R9E NW of NE of Sec. 5 MDBM

UTMs: Zone 10 676690mE 4165520mN NAD27

Zone 10 676660mE 4165800mN NAD83 (NW)

Zone 10 676710mE 4165800mN NAD83 (NE)

Zone 10 676690mE 4165520mN NAD83 (SE)

Zone 10 676610mE 4165480mN NAD83 (SW)

### Management status

### Database record metadata

Date	User
------	------

Entered: 5/9/2011 jay

Last modified: 10/22/201 Anthro

IC actions: Date	User	Action taken
5/9/2011	jay	Appended records from old OHP database.
10/22/201	Anthro	I.R

Record status:

## Resource Detail: P-50-000438

---

### Identifying information

Primary No.: P-50-000438

Trinomial:

Name: Lion's Market; Sander's Bros. Market; 439 7th St. Modesto

Other IDs: Type

Name

Resource Name

Lion's Market; Sander's Bros. Market; 439 7th St.  
Modesto

Cross-refs:

### Attributes

Resource type: Building

Age: Historic

Information base: Survey

Attribute codes: HP06 (1-3 story commercial building) - 1947 Grocery Store Building

Disclosure: Unrestricted

Collections: No

Accession no(s):

Facility:

### General notes

### Recording events

Date	Recorder(s)	Affiliation	Notes
3/30/1996	Judith Marvin	Foothill Resources, Ltd.	

### Associated reports

Report No.	Year	Title	Affiliation
ST-04816	2001	Cultural Resources Assessment Report, Tuolumne River Regional Park Master Plan EIR, Stanislaus County, California.	William Self Associates

### Location information

County: Stanislaus

USGS quad(s): Riverbank

Address: Address

City

Assessor's parcel no.

Zip code

439 Seventh Street

Modesto

38-03-11

95351

PLSS:

UTMs:

### Management status

### Database record metadata

Date User

Entered: 9/7/2012 ccic-admin

Last modified: 12/1/2015 Anthro

IC actions: Date

User

Action taken

11/21/201

Anthro

I.R

Record status:

## Resource Detail: P-50-000439

---

### Identifying information

Primary No.: P-50-000439

Trinomial:

Name: W. H. Breshears, Inc., Chevron Products, 720 B St.; Standard Oil of California Products

Other IDs: Type

Name

Resource Name

W. H. Breshears, Inc., Chevron Products, 720 B St.

Resource Name

Standard Oil of California Products

Cross-refs:

### Attributes

Resource type: Structure, Site

Age: Historic

Information base: Survey

Attribute codes: HP04 (Ancillary building) - Storage tanks; HP06 (1-3 story commercial building) - an office & storage buildings

Disclosure: Not for publication

Collections: No

Accession no(s):

Facility:

### General notes

### Recording events

Date	Recorder(s)	Affiliation	Notes
3/1/1996	Judith Marvin	Foothill Resources, Ltd.	

### Associated reports

Report No.	Year	Title	Affiliation
ME-03995	2000	Cultural Resource Survey for the Level (3) Communications Long Haul Fiber Optics Project; Segment WS04: Sacramento to Bakersfield.	Far Western Anthropological Research Group, Inc., for Parsons Brinckerhoff Network Services
SJ-03995	2000	Cultural Resource Survey for the Level (3) Communications Long Haul Fiber Optics Project; Segment WS04: Sacramento to Bakersfield	Far Western Anthropological Research Group, Inc.; for Parsons, Brinckerhoff Network Services
ST-03995	2000	Cultural Resources Survey for the Level (3) Communications Long Haul Fiber Optics Project; Segment WS04: Sacramento to Bakersfield.	Far Western Anthropological Research Group, Inc.; for Parsons, Brinckerhoff Network Services
ST-04816	2001	Cultural Resources Assessment Report, Tuolumne River Regional Park Master Plan EIR, Stanislaus County, California.	William Self Associates

### Location information

County: Stanislaus

USGS quad(s): Riverbank

Address: Address

City

Assessor's parcel no.

Zip code

720 B Street

Modesto

102-17-01

95351

PLSS:

UTMs:

### Management status

## Resource Detail: P-50-000439

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### Database record metadata

*Date*      *User*  
*Entered:* 9/7/2012    ccic-admin  
*Last modified:* 7/5/2016    EGreathouse  
*IC actions:*    *Date*      *User*      *Action taken*  
                  11/21/201    Anthro      I.R  
*Record status:*

## Resource Detail: P-50-000514

---

### Identifying information

*Primary No.:* P-50-000514

*Trinomial:*

*Name:* Tuolumne River Bridge (S.P. RR at Tuolumne River)

<i>Other IDs:</i>	<i>Type</i>	<i>Name</i>
Resource Name		Tuolumne River Bridge (S.P. RR at Tuolumne River)
Other		Bridge #113.75

*Cross-refs:*

### Attributes

*Resource type:* Structure

*Age:* Historic

*Information base:* Survey

*Attribute codes:* HP19 (Bridge) - bridge

*Disclosure:* Unrestricted

*Collections:* No

*Accession no(s):*

*Facility:*

### General notes

### Recording events

<i>Date</i>	<i>Recorder(s)</i>	<i>Affiliation</i>	<i>Notes</i>
7/22/1991	J. W. Snyder	Architectural & Historic Studies, Caltrans	

### Associated reports

<i>Report No.</i>	<i>Year</i>	<i>Title</i>	<i>Affiliation</i>
ST-01435	1992	Historic Architecture Survey Report; Track Consolidation and Realignment, Modesto, California	Ward Hill

### Location information

*County:* Stanislaus

*USGS quad(s):* Riverbank

*Address:*

*PLSS:* T3S R9E Sec. 32 MDBM

*UTMs:*

### Management status

### Database record metadata

<i>Date</i>	<i>User</i>
-------------	-------------

*Entered:* 3/15/2010 ccic-admin

*Last modified:* 5/11/2017 Anthro

<i>IC actions:</i>	<i>Date</i>	<i>User</i>	<i>Action taken</i>
	11/21/201	Anthro	I.R

*Record status:*

## Resource Detail: P-50-000524

---

### Identifying information

Primary No.: P-50-000524

Trinomial:

Name: Booth's Packing Company, 110-114 11th Street (1960)

Other IDs: Type

Name

Other

DOE 50-92-0011-0000

Resource Name

Booth's Packing Company, 110-114 11th Street (1960)

Cross-refs:

### Attributes

Resource type: Building

Age: Historic

Information base: Survey, Other

Attribute codes: HP08 (Industrial building) - industrial building/warehouse

Disclosure: Not for publication

Collections: No

Accession no(s):

Facility:

### General notes

NRS 6Y1

### Recording events

Date	Recorder(s)	Affiliation	Notes
12/3/1991	W. Hill	Corbett & Hill	
11/13/1992	OHP		FHWA920923B 6Y1

### Associated reports

Report No.	Year	Title	Affiliation
ST-01435	1992	Historic Architecture Survey Report; Track Consolidation and Realignment, Modesto, California	Ward Hill

### Location information

County: Stanislaus

USGS quad(s): Riverbank

Address: Address

City

Assessor's parcel no.

Zip code

110-114 11th Street

Modesto

95350

PLSS: T3S R9E Sec. 33 MDBM

UTMs:

### Management status

### Database record metadata

Date User

Entered: 3/29/2010 ccic-admin

Last modified: 2/16/2017 egreathouse

IC actions: Date User Action taken

11/21/201 Anthro I.R

2/16/2017 egreathous eg

Record status:



## Resource Detail: P-50-000617

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### Identifying information

Primary No.: P-50-000617

Trinomial:

Name: Bridge #38C-23; Lion Bridge; Seventh St. Bridge (1916)

Other IDs:	Type	Name
	Other	City of Modesto Designated Landmark Preservation Site #14
	Resource Name	Bridge #38C-23; Lion Bridge; Seventh St. Bridge (1916)
	Other	DOE-50-86-0001-0000
	OHP PRN	Prop #114971 (determined eligible for the NRHP)

Cross-refs:

### Attributes

Resource type: Structure

Age: Historic

Information base: Survey

Attribute codes: HP19 (Bridge) - Bridge

Disclosure: Unrestricted

Collections: No

Accession no(s):

Facility:

### General notes

### Recording events

Date	Recorder(s)	Affiliation	Notes
10/19/1986	Hans Kreuzberg	OHP	DOE-50-86-0001-0000 2S2
10/19/1986	OHP		Proj. Rev. FHWA860919Z
11/1/2000	Leigh Martin	William Self Associates	2S2

### Associated reports

Report No.	Year	Title	Affiliation
ST-04816	2001	Cultural Resources Assessment Report, Tuolumne River Regional Park Master Plan EIR, Stanislaus County, California.	William Self Associates

### Location information

County: Stanislaus

USGS quad(s): Riverbank

Address:	Address	City	Assessor's parcel no.	Zip code
	Seventh Street	Modesto		95353

PLSS: T3S R9E SW¼ of SW¼ of Sec. 33 MDBM

T3S R9E SE¼ of SE¼ of Sec. 32 MDBM

UTMs: Zone 10 677230mE 4166086mN NAD83

Zone 10 677066mE 4166390mN NAD83 (Northern end)

Zone 10 677160mE 4166000mN NAD83 (Southern end)

### Management status

### Database record metadata

Date	User
------	------

Entered: 9/30/2013

Last modified: 5/12/2017 Anthro

IC actions:	Date	User	Action taken
	9/30/2013	jay	Added placeholder records to fill in primary number sequence.
	11/21/201	Anthro	I.R

## Resource Detail: P-50-000617

---

12/1/2015 Anthro edits by RH

*Record status:*

# Resource Detail: P-50-001811

---

## Identifying information

Primary No.: P-50-001811

Trinomial:

Name: Tuolumne River Bridge (BURNED DOWN-Tidewater-Southern Rwy wooden RR trestle)

Other IDs:	Type	Name
	Resource Name	Tuolumne River Bridge (BURNED DOWN-Tidewater-Southern Rwy wooden RR trestle)

Cross-refs:

## Attributes

Resource type: Structure

Age: Historic

Information base: Survey

Attribute codes: HP19 (Bridge) - A railroad trestle bridge

Disclosure: Unrestricted

Collections: No

Accession no(s):

Facility:

## General notes

No longer exists; burned down.

## Recording events

Date	Recorder(s)	Affiliation	Notes
11/7/1991	John W. Snyder	Architectural & Historic Studies Caltrans	

## Associated reports

Report No.	Year	Title	Affiliation
ST-04816	2001	Cultural Resources Assessment Report, Tuolumne River Regional Park Master Plan EIR, Stanislaus County, California.	William Self Associates

## Location information

County: Stanislaus

USGS quad(s): Riverbank

Address: Address	City	Assessor's parcel no.	Zip code
	Modesto		

PLSS:

UTMs:

## Management status

### Database record metadata

Date	User
------	------

Entered: 9/28/2012 ccic-admin

Last modified: 5/12/2017 Anthro

IC actions: Date	User	Action taken
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11/21/201 Anthro I.R

12/1/2015 Anthro edits by RH

Record status:

## Resource Detail: P-50-001999

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### Identifying information

Primary No.: P-50-001999

Trinomial:

Name: City of Modesto Elevated Water Tower and Tank, near 10th & D

Other IDs: Type

Name

Resource Name

City of Modesto Elevated Water Tower and Tank, near 10th & D

Cross-refs:

### Attributes

Resource type: Structure

Age: Historic

Information base: Survey

Attribute codes: HP11 (Engineering structure) - Elevated Water Tower and Tank

Disclosure: Unrestricted

Collections: No

Accession no(s):

Facility:

### General notes

### Recording events

Date	Recorder(s)	Affiliation	Notes
8/1/2008	Dana E. Supernowicz	Historic Resource Associates; for EarthTouch, Inc.	

### Associated reports

Report No.	Year	Title	Affiliation
ST-06775	2008	Collocation ("CO") Submission Packet FCC Form 621, Project Name: "Downtown Modesto", Project Number: CA-9799; Cultural Resources Study of the Downtown Modesto Project AT & T Mobility Site No. CA-9799 Intersection of 10th & D Streets, Modesto, Stanislaus County, Ca 95354.	Historic Resource Associates; for Earth Touch, Inc.
ST-07589	2012	Collocation Submission Packet FCC Form 621, CVL01322, Downtown Modesto, 920 D Street, Stanislaus County, CA; Proposed AT & T Wireless Telecommunications Site CVL01322 (Downtown Modesto), 920 D. St..	CARE Cellular Archaeological Resource Evaluations; for ATC Associates

### Location information

County: Stanislaus

USGS quad(s): Riverbank

Address: Address

City

Assessor's parcel no.

Zip code

Near intersection of 10th and D Streets

Modesto

106-046-001

95354

PLSS:

UTMs:

### Management status

### Database record metadata

Date User

Entered: 10/13/2011 ccic-admin

Last modified: 11/8/2016 Anthro

IC actions: Date User Action taken

11/24/2011 Anthro I.R

Record status:

## Resource Detail: P-50-002018

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### Identifying information

Primary No.: P-50-002018

Trinomial:

Name: Modesto Pump Station Number 5, 629 2nd St.

Other IDs: Type Name

Resource Name Modesto Pump Station Number 5, 629 2nd St.

Cross-refs:

### Attributes

Resource type: Structure

Age: Historic

Information base: Survey

Attribute codes: HP09 (Public utility building) - Public utility building

Disclosure: Unrestricted

Collections:

Accession no(s):

Facility:

### General notes

It has been demolished.

### Recording events

Date	Recorder(s)	Affiliation	Notes
2/4/2009	Kenneth Horrillo	City of Modesto Recreation and Neighborhood	

### Associated reports

Report No.	Year	Title	Affiliation
ST-07076	2009	An Evaluation of Pump Station Number 5, City of Modesto, California	Peak & Associates, Inc.

### Location information

County: Stanislaus

USGS quad(s): Salida

Address	City	Assessor's parcel no.	Zip code
629 2nd Street	Modesto		95351-3351

PLSS: T3S R9E SE¼ of NW¼ of Sec. 32 MDBM

UTMs:

### Management status

#### Database record metadata

Date User

Entered: 10/13/2011 ccic-admin

Last modified: 7/5/2016 EGreathouse

IC actions: Date User Action taken

11/26/2011 Anthro I.R

Record status:

P - 50 - 000001  
CA - STA - 000350H

**SITE NAME:** Southern Pacific San Joaquin Valley Mainline  
**SITE NUMBERS:** SPM-1 through SPM-35  
**QUAD SHEET:** Various; see site forms  
**PIPELINE LOCATION:** Various; see site forms

Ceres, Salida 7.5' <sup>5/96</sup>

### Description of Feature

The proposed Mojave pipeline alignment crosses the Southern Pacific Railroad's San Joaquin Valley lines at 35 places in Kern, Tulare, Fresno, Madera, Merced, Stanislaus, San Joaquin and Sacramento counties. The sites fall into eight categories (the total equals 36 because one site fit into two categories):

Mainline single track, no other features	8
Mainline double track, no other features	4
Mainline with road crossing at grade, with gates, warning equipment	9
Mainline with sidings or side tracks	7
Mainline single or double track with a street or highway over/undercrossing	2
Mainline junctions with branch line	1
Sidings and spurs off mainline	2
Mainline with trestle or bridge	3

At all of the mainline sites (33 of 35) the tracks show evidence of heavy use (shiny rails) and recent maintenance (regular shaping of embankment, consistent ballasting, etc.) Rail dates indicate that of the 106 observed dates on the mainline, only 15 were before 1950; 91 date from 1950-1990. Of the three railroad bridges or trestles, one was a standard plate girder bridge over Highway 99, the second was a wooden trestle on wood pilings crossing a stream bed, and the third a wooden trestle on concrete abutments carrying the railroad over a Highway 99 underpass.

The 35 sites are located in a variety of settings: rural points in the San Joaquin Valley; rural/residential zones at the edges of valley towns; commercial/industrial sites at the edge of towns; or sites within valley towns. In several instances the railroad runs adjacent to new residential subdivisions created in what were rural agricultural areas.

Detailed information regarding the 35 sites, with photographs and site maps showing location is provided in the attached "Railroad Feature Inventory Forms."

### History of Feature

Construction of the Southern Pacific line on the east side of the San Joaquin Valley began in December 1869 at Lathrop, the Western Pacific junction nine miles south of Stockton. The specific route was not dictated by the wishes of valley residents, but by engineering considerations, and grant requirements, local aid, and the desire for monopoly control.

The line was located about midway between the San Joaquin River and the Sierra Nevada foothills in the northern part of the valley and tapped the region with the highest population density and agricultural potential. In the arid southern portion of the San Joaquin Valley the railroad continued along the eastern side of the plains where streams flowing from the mountains made irrigation possible. Whereas engineering considerations such as favorable sites for bridging rivers were important, the potential for town promotion and townsite acquisition by the railroad to a large degree controlled route selection. The absence of urban centers southward from Lathrop and the small requirements for grading facilitated construction of an efficient, straight route through the valley. Crossing rivers and streams would be the main item of expense, but as Charles Crocker pointed out in most cases they could be crossed in culverts, instead of bridges (Smith 1976:116)

Employing a crew of about 200 Chinese laborers, the company pushed the San Joaquin Valley mainline south eleven miles to the Stanislaus River by May 1870. The first Central Pacific locomotive entered the new railroad town of Modesto, sixteen miles south of Lathrop, on May 5, 1870. The railroad had a profound effect on earlier local supply and service centers. People from the surrounding towns of Tuolumne City, Paradise, Empire, and Westport, for example, moved their businesses and many commercial buildings to the new town site of Modesto. Early settlements on the Kings, Kaweah, and Tule river fans were similarly drained of population by new railroad towns.

The Southern Pacific bridged the Tuolumne River just south of Modesto in June 1871 and continued its construction south founding the towns of Turlock and Merced before year's end. To meet the Southern Pacific's contractual obligations under the congressional land grant, the company settled on the solution of connecting their twenty miles of Southern Pacific lines south of Visalia to the San Joaquin Valley railroad before July 1, 1872. During early 1872 the Southern Pacific drove with extraordinary intensity southeast through Merced County to the new town of Fresno in May 1872 (Tinkham 1923: 94; Carothers 1934: 47-48, 52-54; Preston 1981: 128-129).

The Southern Pacific proceeded south to the proposed Goshen junction with the Southern Pacific's west side line that was planned to link the main valley line with San Francisco by way of Gilroy, Tres Pinos, and Huron. Goshen, located seven miles east of Visalia, dates from the completion of the railroad tracks to that point in June 1872. The town was laid out with more than ordinary care as it was made a division point with a roundhouse, machine shop, hotel, and depot (Carothers 1934: 56-57).

Visalia, one of the few pre-railroad towns in the valley and nearly 1,000 residents in 1870, was bypassed when its citizens voted not to pay the subsidies demanded by the Southern Pacific. The Big Four chose to continue their southern trajectory from Goshen to a point midway between the foothills and Tulare Lake where the railroad founded the town of Tulare City. Tracks were laid out over the semi-barren, dusty plains to Tipton and reached Delano Station, an important shipping point for wool and stock, in July 1873. In April 1874 construction resumed south of Delano to the Kern River. When the town of Bakersfield balked at providing a right of way and land grant to the railroad, the company constructed a bridge over the river on higher land upstream a short distance east of Bakersfield and laid out a new town called Sumner (East Bakersfield). The Southern

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Pacific railroad was open for travel to Sumner in August 1874. Two years later the line had been completed through the foothills through Tehachapi Pass and the Mojave Desert, to Los Angeles (Preston 1981: 122-123).

The Southern Pacific contracted out much of its construction work in the San Joaquin Valley to the Contract and Finance Company, a construction company controlled by the Southern Pacific, and which had built other lines for the company elsewhere in the state. The Big Four set up the Western Development Company in 1874 to replace the Contract and Finance Company. It built the line from Sumner to San Fernando (Daggett 1966: 75-82, 131-133).

Railroad building on the flat, alluvial plains enabled the crews to make rapid progress, wrote another observer: "A few furrows are made on each side, the dirt thrown to the center and the grade is made. Then the ties are laid, and the rails, a few spikes driven, and the road is complete." (Small 1926: 164). Bridge builders constructed trestles across creeks and rivers ahead of the crews laying track. Track laying proceeded in a highly regimented manner with several miles laid each day.

Loading platforms and water stations were located at five to seven mile intervals along the tracks. Town sites were not platted at these crossroad locations (Preston 1981: 123, 125). When the construction crews reached an area the company selected as a future townsite, the engineers staked off a large tract for a railroad yard for warehouses, switching tracks, a depot, and the townsite. Many of the valley's larger cities were laid out as isolated railroad towns in the 1870s and 1880s by the Southern Pacific, which built, settled, and nurtured the infant cities until settlement was successful. Nearly all San Joaquin (and for that matter Central Valley) railroad towns share a common plan: a central depot with a surrounding uniform plat. Lots were laid out in a regular pattern on a rectangular grid aligned with the tracks rather than with the grid of the government survey. As railroad towns grew, surrounding landowners who subdivided their property did not always conform to the railroad plat. The legacy of this two-phase process of subdivision is a special hybrid street pattern characteristic of all Central Valley railroad towns (Smith 1976: passim).

The Central Pacific, its leased lines, and, later, the Southern Pacific were from the beginning under unified control. In March 1884 the Central Pacific and Southern Pacific combined into the Southern Pacific Company. During the next 15 years the Southern Pacific added a total of 2,630 miles of lines (Hofsommer 1986: 1-8).

In a brief time, the Big Four had created a prodigious railroad empire that transformed California and much of the American West. Nowhere was the transformation more profound than in the San Joaquin Valley. Between 1870 and 1880 the population grew by 45 percent and the acreage of improved land increased by 71.6 percent. By the 1880s the Southern Pacific had established about 50 stations in the six San Joaquin Valley counties. Townsite locations were founded at 24 of these stations; of these eight became major towns. Also, by the end of the 1880s Southern Pacific held patents to more than a million acres of valley land. Much of the land went to large land developers, but the railroad made hundreds of thousands of acres available to small farmers and pioneer agricultural colonies (Smith 1976).



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Since the time of its construction the San Joaquin mainline has served the San Joaquin Valley. At numerous points sidings, spurs and side tracks were added to tap local industries or commercial centers. For example, two sites, SPM-24 and SPM-25, are connected to the mainline by spurs originally built in 1898s (Kathy Bisphas, Heublein Wines, April 27, 1994)

In 1923 the Southern Pacific began a major program of rehabilitation and development that lasted through 1930 and cost \$387,000,000; it was one of the largest such programs in the company's history (Heath 1945: 25-30). During the Great Depression, Southern Pacific's revenue dropped and reduction of services followed; some branch lines were abandoned and torn up, unprofitable services curtailed, and old equipment scrapped.

In contrast, World War II brought record freight orders and greatly increased passenger traffic. Because most of the Southern Pacific's mainline in California is single track, increased traffic presented a serious problem. To speed wartime delivery schedules, the company installed a Centralized Traffic Control system on its California lines. Further major improvements in the tracks included: installation of 1,400 miles of new rail, mostly 113-pound and 132-pound replacement track for lighter, older rails; 268 sidings and siding extensions; strengthening track structures, such as bridges and trestles; construction of new roundhouse and shop facilities; and expansion of stations (Hofsommer 1986: 190-1207; Heath 1945:44-50).

After the war, Southern Pacific used its wartime gains to enhance its operating system. Perhaps the biggest improvement to the Southern Pacific railway route in California during the post-World War II period was its impressive 78.3 mile, \$22 million Palmdale cut-off completed in 1967, which included upgrading the main line through the San Joaquin Valley with new welded "ribbon rails" manufactured at the Tracy rail-welding plant. The ties, rails, and ballast were laid with newly developed, mechanized track-laying machines that placed the ties, aligned rails, drove spikes, and spread ballast with precision impossible to obtain in the previous century. These rails are still functioning on hundreds of miles of Southern Pacific track throughout the Central Valley (*Sacramento Bee*, May 14, 1967; Southern Pacific Bulletin, December 1967). This program accounts, to a large degree, for the modern condition of the San Joaquin mainline seen at the recordation points.

#### Evaluation of Feature

The Southern Pacific San Joaquin Valley mainline crossing sites evaluated as a part of this inventory do not appear to be eligible for listing in the National Register of Historic Places. While the line was built in the 1870s, and played an important role in the history of transportation in California and the western United States, and to the development of towns and agriculture in the San Joaquin Valley, the railroad related resources at the 35 sites recorded have insufficient integrity of materials, setting, design, workmanship, feeling and association to be eligible to the National Register.

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The resources that would be significant and eligible for the National Register would be those that were related to the original construction of the Southern Pacific main line through the San Joaquin Valley during the period 1869-1876, or which exhibit important characteristics (construction techniques, engineering features, etc.) of that period. None of the crossing points surveyed, however, have resources from the period of significance.

Like most heavily used main railroad routes, this line has aspects that are more similar to a machine than a structure. As with all pieces of heavy equipment, over time parts become worn out or break and are then replaced. The technology of railroad construction has also undergone significant evolution in the past 100 years with respect to rail manufacturing. The iron rails laid in the 1870s were far different from the modern rails rolling out of steel plants today. In the case of the 35 mainline sites (SPM-1 through SPM-35), the major resource related to the period of significance (1869-1876) is the right of way itself; all other resources -- rails, tie plates, ties, ballasting, signals, warning arms, road crossings, etc. -- have been replaced and exhibit either dates or characteristics that place their installation well after the period of significance.

Rail dates at these locations provide an insight into the process of rebuilding the valley railroad in the 20th century. JRP field crews collected 106 rail dates at the 35 sites on the mainline. Of these, only 15 were from the period 1928-1949; none were earlier. Ten rail dates were from 1956, 40 from 1966-67 (consonant with the Southern Pacific's rebuilding program of that time), 28 were from 1969-70, and 14 were from the years 1971-1990. The sites that have the oldest elements, such as SPM-17, SPM-24, and SPM-25 still only dated to the late 1920s; and those have survived primarily because of lighter and less regular use off the mainline. Furthermore these sites, primarily sidings or short spurs, are not of the same historical significance as the mainline. Therefore none of the 35 Southern Pacific San Joaquin Valley Lines sites crossed by the Mojave Pipeline proposed main line or alternatives described above are eligible for listing in the National Register owing to an overall lack of integrity to the period of significance, primarily in setting, design, materials, workmanship, feeling and association.

# RAILROAD FEATURE INVENTORY FORM

P-50-000001  
CA-STA-000350H

**PROJECT:** Mojave Natural Gas Pipeline, Northern Extension Project  
**MILEPOST:** 197.8  
**QUAD NAME & NO.:** Ceres (34)

**LOCATION NO:** SPM-30  
**PHOTO DATE:** April 19, 1994

1. **Name of Line:** Southern Pacific - San Joaquin Mainline

2. **Location of recordation:** This site is located just south of where the welded double tracks pass under the Service Road overcrossing in Ceres (Photograph 1).

3. **Structures at or near this location:** There are no railroad related structures at this site. The railroad alignment runs in a southeast-northwest direction at this site. There are two sets of parallel tracks, roughly 13' feet apart; the eastern set contains rails consistently dated 1966, and the western set contains rails dated in the late 1940s. Both sets contain rails welded into continuous track. Service Road passes over the two sets of tracks just north of the APE. West of the APE Lucas Road diverges off Service Road and then extends south, parallel to the west side of the tracks. State Route 99 extends parallel to the north side of the tracks.

4. **Setting at this location:** Southwest of the APE is an orchard, and to the northwest is an auto wrecking and salvage company. State Route 99 lies to the east of the APE.

5. **Integrity considerations for this feature:** Southern Pacific replaced rails along the eastern alignments sometime after 1966. Along the western alignment rails were replaced sometime after 1946.

6. **Attributes at this location (measurements in feet):**

Width, berm-berm: 34

Top width (crown): 28

Height or Depth: 2' 6"

Ballast Material: Crushed granite

7. **Observed dates:**

Rails: APE w/e: 1946/1966

North w/e: 1948/1966

South w/e: 1947/1966

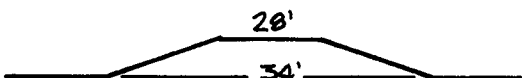
Tieplates: APE w/e: 1938/1966

North w/e: 1938/1966

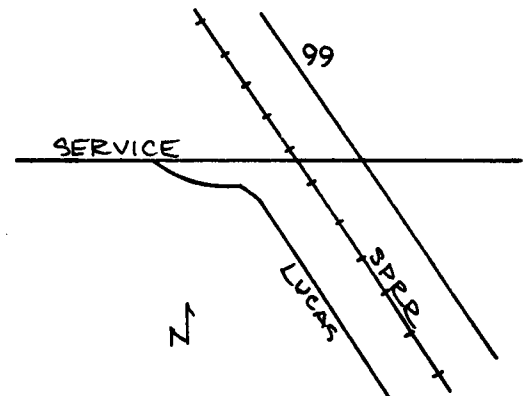
South w/e: 1938/1966

Other:

Sketch, in cross section: Looking northwest



Location Sketch:

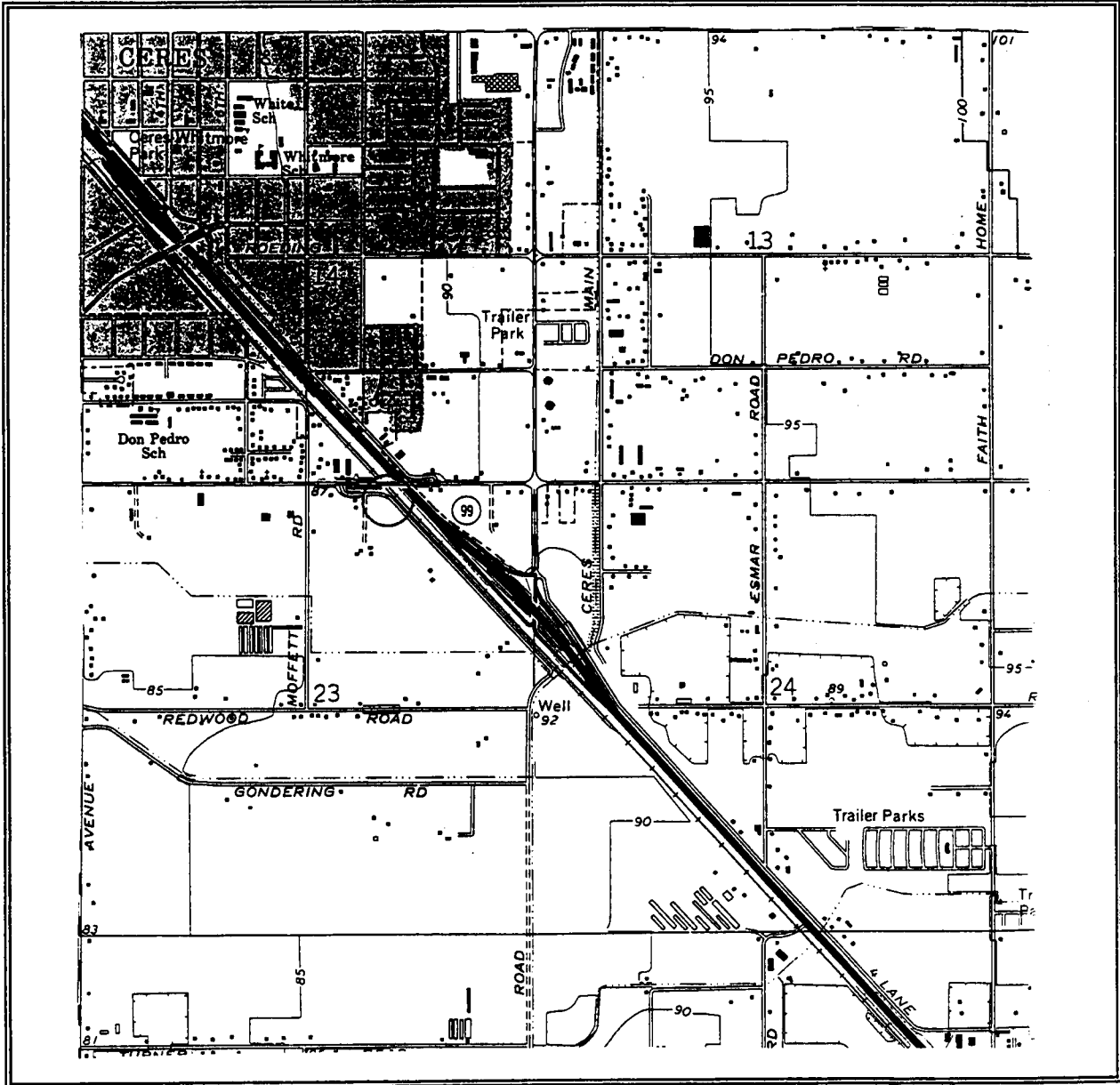


Q-50-000001  
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Photograph Number: 1  
Site Number: SPM-30  
Common Name: Southern Pacific San Joaquin  
Mainline



P-50-000801  
CA-STA-000350H



**SITE NAME:** Southern Pacific San Joaquin Mainline, Stanislaus County  
**SITE NUMBER:** SPM-30  
**QUAD SHEET:** "Ceres Quadrangle," USGS: 1969, photorevised 1987  
**PIPELINE LOCATION:** MP 197.8

# RAILROAD FEATURE INVENTORY FORM

P-50-000001  
CA-STA-000350H

**PROJECT:** Mojave Natural Gas Pipeline, Northern Extension Project  
**MILEPOST:** 0.0 A-118 (205.3 on Mainline)  
**QUAD NAME & NO.:** Salida (36)

**LOCATION NO:** SPM-31  
**PHOTO DATE:** April 19, 1994

1. **Name of Line:** Southern Pacific San Joaquin Mainline

2. **Location of recordation:** This site is located parallel to the west side of North 9th Street, across from Clayton Avenue in Modesto. The Carpenter Road overcrossing is located about 200 yards to the northwest (**Photograph 1**).

3. **Structures at or near this location:** There are no structures at this site related to the two sets of parallel tracks.

4. **Setting at this location:** The area east of this site is a commercial district. To the west lies the Regional Fire Training Center.

5. **Integrity considerations for this feature:** Southern Pacific began replacing rails along the western track sometime after 1947. The company began replacing rails along the eastern track sometime after 1966. The eastern rails are welded into a continuous track.

6. **Attributes at this location (measurements in feet):**

**Width, berm-berm:** 41

**Top width (crown):** 26

**Height or Depth:** 3

**Ballast Material:** Crushed granite

7. **Observed dates:**

**Rails:** APE w/e: 1949/1966

North w/e: 1947/1966

South w/e: 1972/1977

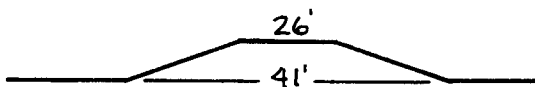
**Tieplates:** APE w/e: 1955/1966

North w/e: 1941/1966

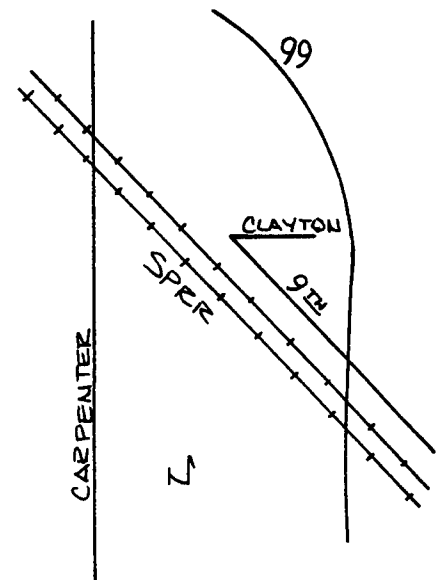
South w/e: 1957/1966

**Other:**

**Sketch, in cross section: Looking north**



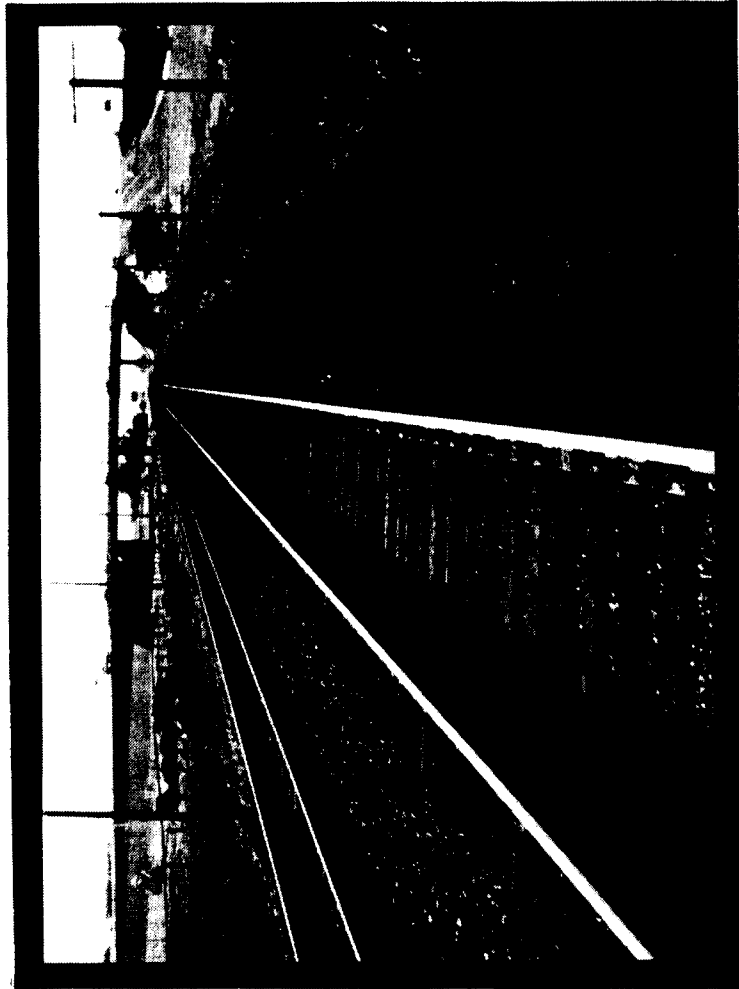
**Location Sketch:**



P-50-000001  
CA-STA-000350H

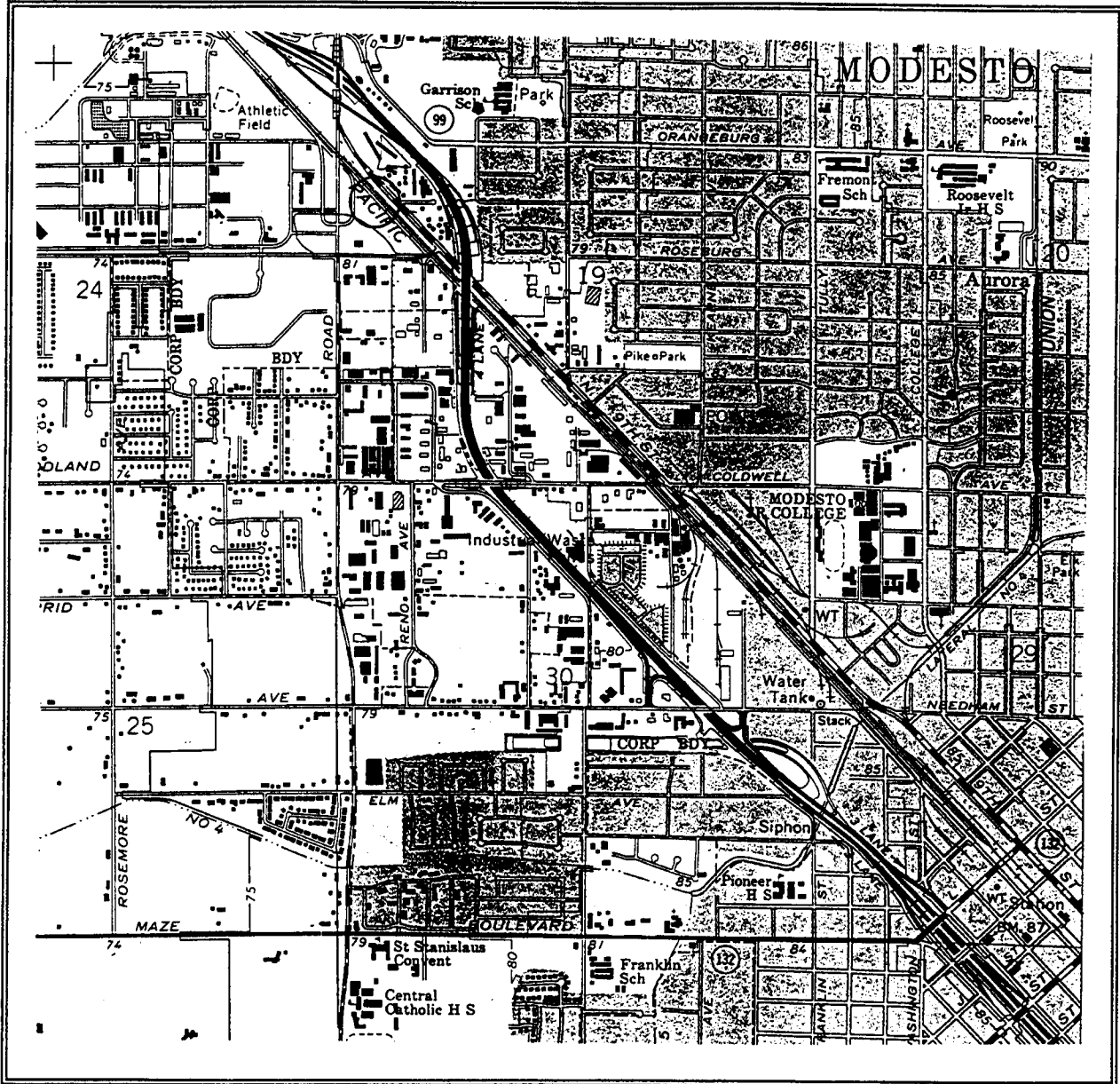
Photograph Number: 1  
Site Number: SPM-31  
Common Name: Southern Pacific San Joaquin  
Mainline

1



P-50-000001

CA STA-000350H



**SITE NAME:** Southern Pacific San Joaquin Mainline, Stanislaus County

**SITE NUMBER:** SPM-31

**QUAD SHEET:** "Salida Quadrangle," USGS: 1969, photorevised 1987

**PIPELINE LOCATION:** MP 0.0 A-118 (205.3 on Mainline)



P-50-000083

\*Recorded by: N. Lawson \*Date: 3/16/09  Continuation  Update

P2. Location:  Not for Publication  Unrestricted \*a. County: Stanislaus 8/13

\*b. USGS 7.5' Quad: *Ceres* Date: 1987 T 4S; R 9E; Sections 4, 9, 16, 21; M.D.B.M.

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: Segment of the UPRR rail line which runs south from Hatch Road to Wood Road, approximately one half mile east of Crow's Landing Road.

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The TSRR segment recorded here runs adjacent to the 69 kV line to be reconducted for approximately four miles. The section of rail line visible on the historic maps reviewed and located in the A2PP APE is a segment of the TSRR interurban electric railway. This segment runs between Hatch Road and Wood Road and was a part of the TSRR completed in 1916. Although the segment recorded in the A2PP was initially intended to be an electric line, it was never actually electrified (Hatoff et al. 1995). The newly-recorded section of TSRR located within the transmission line corridor runs along the footprint of the original historic railroad grade; however, modern upgrades to the rail line, including modern rail crossings, upgraded rail lines and ties are extant. Additionally, the rail grade itself has been modified to allow for heavier loads to be run upon the tracks.

This line has been recorded in other parts of Stanislaus County as P-50-00083 (Napton, 1994; Sharpe 2003) and in San Joaquin County (Hatoff 1995) as P-39-00015 (CA-SJO-256H). In the A2PP APE, the TSRR has not yet been recorded. None of the segments of the TSRR investigated by Napton (1994), Sharpe (2003), and Hatoff (1995) were determined to be NRHP or CRHR-eligible. These previously recorded and discontinuous segments are not considered eligible to the NRHP as the segments lack integrity due to modern improvements made to the tracks, the rail ties, and the rail beds (Napton, 1994; Sharpe, 2003; Hatoff, 1995). This segment, likewise, was determined not eligible for listing on the NRHP or the CRHR.

P5. Description of Photo: (View, date, accession #) TSRR, view to the south at Hatch Road.



\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") TID Almond Power Plant No. 2, AFC Application.

\*Recorded by: N. Lawson

\*Date: 3/16/09

 Continuation Update**Historic Context**

The Central Valley is defined historically by agriculture and transportation. The area around Modesto and Ceres is no exception. In addition to the railroads, such as the Central Pacific and the Western Pacific, ferries serviced the area via several ferry landings and the Tuolumne and the San Joaquin Rivers. The road that would eventually become State Route 99 was planned and permitted in the late 1800's, although the paved highway was not completed until 1968. Ceres was first settled in 1870 and by 1872, the CPRR stopped at Ceres. Wheat was planted on thousands of acres in the region. The settlement of Crow's Landing was founded by J.B. Crow, one of the first wheat growers in the area. Crow established a landing on the San Joaquin River to ship his wheat to market and Crow and his two partners operated a ferry at that landing from 1870 until 1885 (Napton 1991). Crow's Landing Road represents the original road which connected two ferries, the Davis and Maze's Ferry on the Tuolumne and the Fairbank's Ferry on the San Joaquin. This main road was established in 1870. Several small taverns were constructed along this main road and served as way stations for (Brotherton 1982).

Hot dry summers and over cultivated lands made wheat growing less and less prosperous as the 19<sup>th</sup> century drew to a close. In 1887, the Wright bill, a bill that proposed the creation of irrigation districts in California, passed the California Senate and Assembly and was signed into law by then Governor Washington Bartlett. Local irrigation districts, including the TID and the Modesto Irrigation District (MID), created water conveyance systems in the early 1900s and started the flow of water into the area. Farmers began to diversify their crops and experimented with fruit and nut trees that did not require as much water as wheat. The combined efforts of the TID and the MID resulted in the construction of the La Grange Dam in 1893. The promise of water and cheap land brought an influx of settlers into the area. Expanding rail lines and ferry service made travel into the region easier.

By 1912, the Tidewater Southern Railroad connected Modesto with Stockton. This line operated as a freight feeder system and connected with the Western Pacific Railroad at Manteca Junction. Modesto was connected with Turlock via rail by 1916 (Paterson 1989) providing easy access to rail lines for local growers. A rise in canneries throughout the region provided convenient buyers for local fruit and vegetable sellers who, prior to the opening of the canneries had to haul their figs, apricots, and peaches to San Jose or Santa Clara for processing.

**Period of Significance**

From the standpoint of agriculture, which was the primary occupation of the people that settled the TID region, the years from 1900 to 1920 were the ones of growth and development. These were the pioneering times when many families lived in one end of a barn while their cattle resided in the other end until the family could afford a barn and a house. World War I brought a sharp increase in the price of agricultural products and the local gross farm income soared from 14,300,000 dollars in 1910 to 34,204,000 dollars in 1919. Prices crashed in 1920 and did not recover until World War II (Hohenthal 1972: 217).

The recorded segment of the TSRR was completed in 1916, thus making settlement in the region easier as well as providing easy shipping access to local farmers. Using 1900 to 1920 as the period of significance effectively captures the important historical context of the historic built environment in the immediate project area. Buildings, farms, and associated outbuildings were constructed in direct response to the newly expanded freight line.

The TSRR, which runs adjacent to the 69 kV line to be reconductored and less than 200 ft to the west of the proposed plant site, has been recorded in other parts of Stanislaus County as P-50-00083 (Napton, 1994; Sharpe 2003) and in San Joaquin County (Hatoff 1995) as P-39-00015 (CA-SJO-256H). In the A2PP APE, the TSRR has not yet been recorded. None of the segments of the TSRR investigated by Napton (1994), Sharpe (2003), and Hatoff (1995) were determined to be NRIHP or CRHR-eligible. These previously recorded and discontinuous segments are not considered eligible to the NRIHP as the segments lack integrity due to modern improvements made to the tracks, the rail ties, and the rail beds (Napton, 1994; Sharpe, 2003; Hatoff, 1995).

P-

State of California — The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**CONTINUATION SHEET**

Primary # 50-00083  
HRI#  
Trinomial

Page 3 of 5

\*Resource Name or # (Assigned by recorder) Tidewater Southern Railroad

\*Recorded by: N. Lawson

\*Date: 3/16/09

Continuation

Update

The section of rail line visible on the historic maps reviewed and located in the A2PP APE is a segment of the TSRR interurban electric railway. This line originally connected passengers between Taylor Street in Stockton and downtown Modesto. The line was eventually converted into a feeder line for the main Southern Pacific and Central Pacific lines, which were the first railroads to run through the San Joaquin Valley. The TSRR is now a part of the Union Pacific Railroad (UPRR). One separate section of this railroad is recorded elsewhere in Stanislaus County as site P-50-00083.

The historic TSRR was incorporated in 1910 and was originally an interurban electric railway that was intended to run from Stockton south through the San Joaquin Valley. In 1912, the TSRR consolidated with the Tidewater and Southern Transit and began operation as the Tidewater Southern Railway (Napton, 1994). By 1916, the line ran south to Turlock. The line was only electrified to Modesto and steam engines ran on the remainder of the track between Modesto and Turlock. The TSRR remained an independent line until 1917 when it was acquired by the the Western Pacific Railroad who bought much of the stock in the TSRR and began changing the line into a conventional feeder line. The purchase of the TSRR was a part of the WPRR's expansion designed to extend its market though the acquisition of feeder lines which ran into the main WPRR line. By the 1930's, passenger service on the TSRR was stopped and most of the electric service was removed (Hatoff et al. 1995). The line was further upgraded after World War II as the newer heavier diesel locomotives required heavier rail (Sharpe, 2003). The line is still actively used between Modesto and Stockton as a freight feeder line. The WPRR merged with the UPRR in 1983, two months before its 80<sup>th</sup> anniversary. Shortly after, the UPRR began an additional series of improvements to the Old WPRR tracks to enable larger locomotives and heavier freight cars running at higher speeds to run on the WPRR. The upgrades included heavier rails, new ties, and improved rail beds to permit higher tonnage on the tracks (Bridges, 1983).

The newly-recorded section of TSRR located within the transmission line corridor runs along the footprint of the original historic railroad grade; however, modern upgrades to the rail line, including modern rail crossings, upgraded rail lines and ties are extant. Additionally, the rail grade itself has been modified to allow for heavier loads to be run upon the tracks. Consistent with all other recorded segments of this rail line, this particular segment of the TSRR does not appear to be eligible for listing on the NRIHP as it no longer retains integrity. This railroad segment was evaluated in accordance with Section 15064.5 (a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code. This railroad segment does not appear to meet any of the significance criteria as outlined in these guidelines.

**References Cited or Consulted**

Brotherton, J. 1982. *Annals of Stanislaus County, Volume I: River Towns and Ferries*. Western Tanager Press, Santa Cruz.

Hohenthal, H.A., J.E. Caswell, and V. Sonntag. 1972. *Streams in a Thirsty Land*. City of Turlock, California.

National Register Bulletin, No. 15. *How to Apply the National Register Criteria for Evaluation*. 1990. National Park Service.

Paterson, A.M. 1989. *Land, Water, and Power: A History of the Turlock Irrigation District 1887-1987*. The Arthur H. Clark Company, Spokane, Washington.

Sharpe, James J. 2003. *Primary Record From P-50-00083, Tidewater Southern Railroad*. Document on file, Central California Information Center, Stanislaus State University, Turlock, CA.

**L1. Historic and/or Common Name:** Tidewater Southern Railroad; now the Union Pacific Railroad

**L2a. Portion Described:**  Entire Resource  Segment  Point Observation **Designation:**

**b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map) The recorded section is limited to the section which runs from Hatch Road south to Wood Road. This section is located on the *Ceres* 7.5' quadrangle approximately 1/2 mile east of the intersection of Hatch Road and Crow's Landing Road.

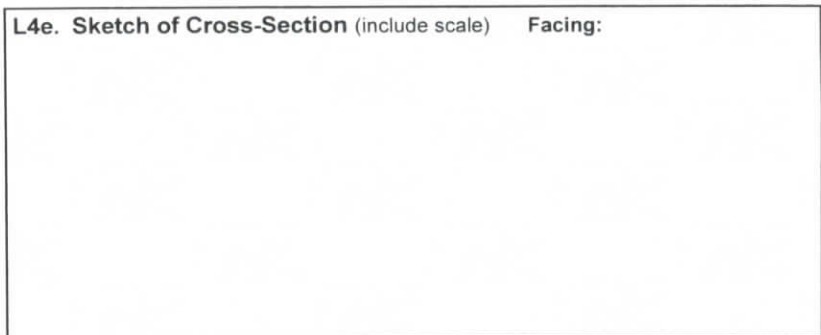
**L3. Description:** (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.) This section of railroad is a single track with modern heavy gauge rails and pressure treated ties. Cross streets, including Hatch Road, Whitmore Road, and Service Road are paved with asphalt. The remainder of the recorded line is situated upon a crushed granite ballast berm. All crossing guards, warning lights, and associated signage are modern.

**L4. Dimensions:** (In feet for historic features and meters for prehistoric features)

- a. **Top Width:** 12 feet
- b. **Bottom Width:** 20 feet
- c. **Height or Depth:**
- d. **Length of Segment:** approximately 4 miles

**L5. Associated Resources:** Modern crossing guards, warning lights

**L4e. Sketch of Cross-Section** (include scale) Facing:



**L6. Setting:** (Describe natural features, landscape characteristics, slope, etc., as appropriate.) This segment is located near agricultural fields, farms, residences, and a small dairy.

**L7. Integrity Considerations:** The integrity of this segment has been compromised due to the improvements made to the track in the 1940's after complete removal of the electric lines north of this segment, as well as in the 1980's following the UPRR acquisition of the WPRR. The original historic features of this line have been removed and thus, the historic integrity is gone.

**L8b. Description of Photo, Map, or Drawing** (View, scale, etc.) View to the south.

**L8a. Photograph, Map or Drawing**



**L9. Remarks:**

While the original location of the TSRR line remains, the track has been upgraded and thus, has lost historic integrity.

**L10. Form Prepared by:** (Name, affiliation, and address)

Natalie Lawson, CH2M HILL, 6 Hutton Centre Drive, Santa Ana, CA 92707

**L11. Date:** January 1, 2009

# LOCATION MAP

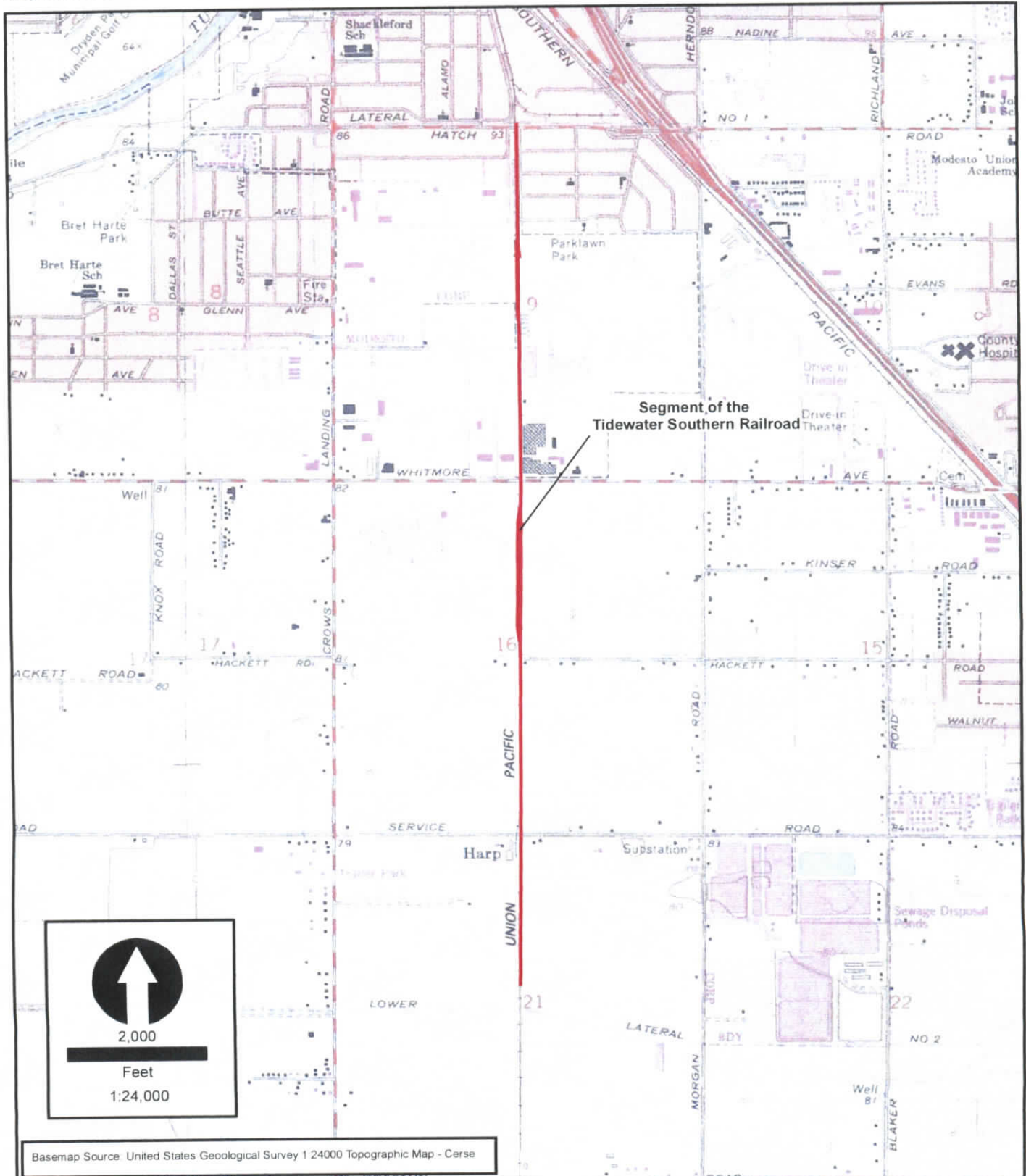
Page 2 of 2 *5 of 5*

Resource Name or #: Segment of the Tidewater Southern Railroad

Map Name: Ceres 7.5 min USGS Topographic Quadrangle

Scale: 1:24000

Date of Map: 1987



State of California — The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # P 50-000083  
HRI #  
Trinomial  
NRHP Status Code

Other Listings  
Review Code

Reviewer

Date 1/28/03

Page 1 of 5

\*Resource Name or #: Segment of the Tidewater Southern Railroad

1/07

P1. Other Identifier: Tidewater Southern Railroad

\*P2. Location:  Not for Publication  Unrestricted

\*a. County: Stanislaus

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

\*b. USGS 7.5' Quad: Turlock, CA.

Date: 1980 T ; R ; ¼ of ¼ of Sec ; M.D. B.M.

c. Address:

City: Turlock

Zip:

d. UTM: Zone: 10 ; 685444 mE/ 4150979 mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation:

The survey point was located at the crossing of the Tidewater Southern Railroad and Washington Road.

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

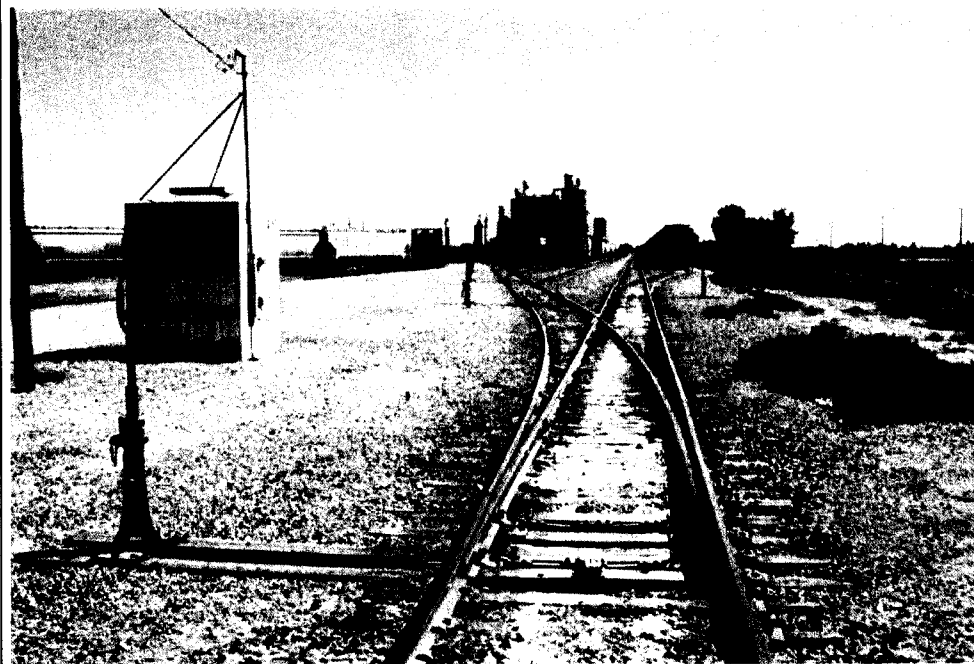
This segment of the railroad is located in an agricultural setting and used in part to transport grain to the Tyson elevators a short distance to the east of Washington Road. At Washington Road, the rail consists of a single set of tracks set at grade with concrete pad added for traffic crossing. Railroad signal gates are located on each side of the crossing. A short distance east of Washington Road, is a small silver building used as a relay case for the signal light and a switch stand track. West of Washington at the switch stand, the railroad has five spur lines used by the Tyson grain elevators.

\*P3b. Resource Attributes: (List attributes and codes)

AH7. Railroad Grade

\*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #) Photo #15, Looking east from Washington Road, 9-20-02.

\*P6. Date Constructed/Age and Sources:  Historic

Prehistoric  Both

\*P7. Owner and Address:

Tidewater Southern Railroad  
Owned & Operated by the Union  
Pacific Railroad

\*P8. Recorded by: (Name, affiliation, and address) James J. Sharpe, CH2M HILL 2485

Natomas Park Drive, Sacramento, CA.

\*P9. Date Recorded: 9/20/02

\*P10. Survey Type: (Describe) General Reconnaissance Inventory

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.")

*Cultural Resource Management Report, Walnut Energy Center, Stanislaus County, California.* James C. Bard with James J. Sharpe, Robin D. McClintock and Elizabeth D. Calvit (January 10, 2003). CH2MHILL, Inc., Sacramento. Report on file, California Energy Commission, Sacramento.

\*Attachments:  NONE  Location Map  Sketch Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Feature Record  Milling Station Record  Rock Art Record  
 Artifact Record  Photograph Record  Other (List):

DPR 523A (1/95)

\*Required information

LOCATION MAP

Trinomial

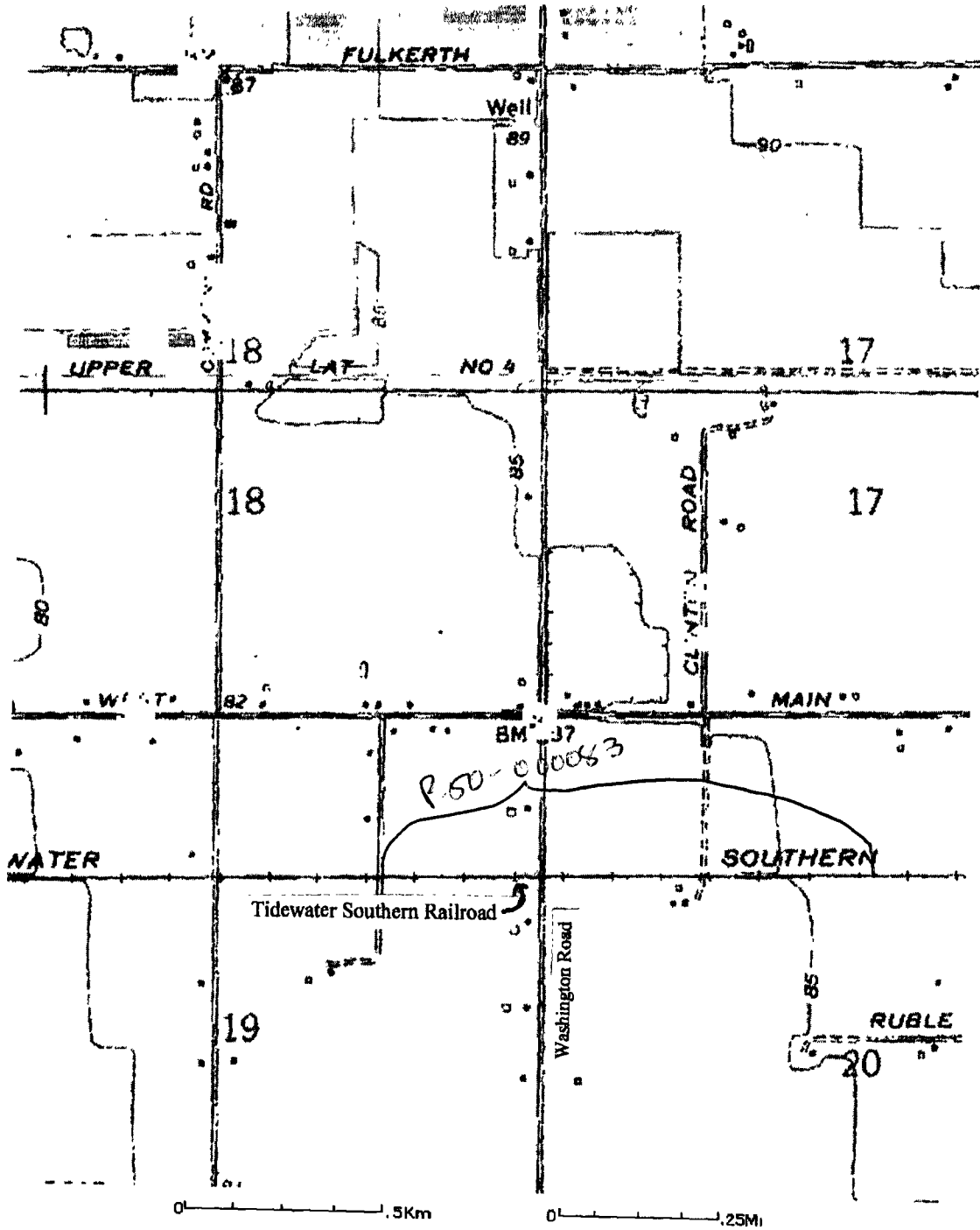
Page 2 of 5

\*Resource Name or #: Tidewater Southern Railroad

\*Map Name: Turlock, CA (20ft Contour)

\*Scale: 1:24,000

\*Date of Map: 1980



**L1. Historic and/or Common Name:** Tidewater Southern Railroad

**L2a. Portion Described:**  Entire Resource  Segment  Point Observation

**Designation:** Washington Road Crossing

**b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map)

The track segment, west of Turlock, CA. crosses Washington Road. The segment's UTM coordinates at that location are Zone 10, 685444 mE, 4150979 mN.

**L3. Description:** (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

The rails rest on gravel basalt held in place with wood railroad ties. The track is oriented in an east/west direction.

**L4. Dimensions:** (In feet for historic features and meters for prehistoric features)  
One lane crossing

**L5. Associated Resources:**

Railroad crossing signs, relay building, and switching mechanism are shown in photographs.

**L6. Setting:** (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The tracks are located in an agricultural setting.

**L4e. Sketch of Cross-Section** (include scale)

Facing: See photographs

**L7. Integrity Considerations:**

The Tidewater Southern began operations as an interurban electric railway to serve a route projected to extend from Stockton south along the San Joaquin Valley. On October 4, 1910, the Tidewater and Southern Railroad was incorporated and soon it constructed railroad grade to a point about 4 miles south of Modesto (Guido 1950:3-13). The Tidewater and Southern consolidated in 1912 with another company (Tidewater and Southern Transit) and then operated under the name Tidewater Southern Railway (Napton 1994).

The new railroad accelerated construction during 1912 and opened for service 32.23 miles of electric railway between Taylor Street in Stockton and the downtown Modesto passenger terminal. Operated as a freight feeder system, the railroad connected with the Western Pacific Railroad (WPRR) at Manteca Junction some 3 miles north of Manteca. The TSRR gradually expanded its operations in 1916 by opening a 16-mile extension from Modesto into Turlock. The extension of electrification failed to materialize and the interurbans never operated south of Modesto.

In 1907, W.A. Irwin promoted construction of a townsite south of Turlock, to be called Irwin City. The TSRR proposed to run its line through Irwin City to Fresno, but the residents of Irwin demurred, so the railroad encouraged development of an alternative townsite to the north, called Hilmar. The latter was founded and Irwin soon faded away.

According to Hohenthal et al. (1972) and Shireman (1970), the TSRR line was electrified as far as Modesto, steam locomotives being used on the 28-mile run south to Hilmar. The southward extension of the railroad was attractive to the WPRR, and in 1917 that company bought the majority of stock in the TSRR. A 10-wheel locomotive was operated on the line, and branch lines were constructed during this period for freight service. These included an 8-mile extension to Hilmar (south of Turlock), opened in 1917, and a 6.6-mile branch to Manteca, opened in 1918. It was planned to extend service from Nile Garden near Manteca south down the San Joaquin Valley as far as Bakersfield, but this ambitious scheme never materialized (Napton 1994).

Incrementally, the WPRR transformed the TSRR from its original electric interurban configuration to a conventional feeder railroad. The line's passenger service was discontinued in 1932, and the WPRR began dismantling the electric overheads along the mainline between Stockton and the northern limits of Modesto.

After World War II, the WPRR began to upgrade the mainline long-haul freight traffic and abandoned some of its branches. The WPRR brought in new diesel locomotives for the Tidewater Southern, some of which were used on the Sacramento Northern Western Pacific subsidiary as well. This heavier equipment required a heavier rail, and virtually all of the track was replaced after 1945 (Guido 1950). In time, the TSRR abandoned its Manteca Branch, but the line is still actively used along the Modesto to Stockton mainline as well as the Turlock Branch.



References:

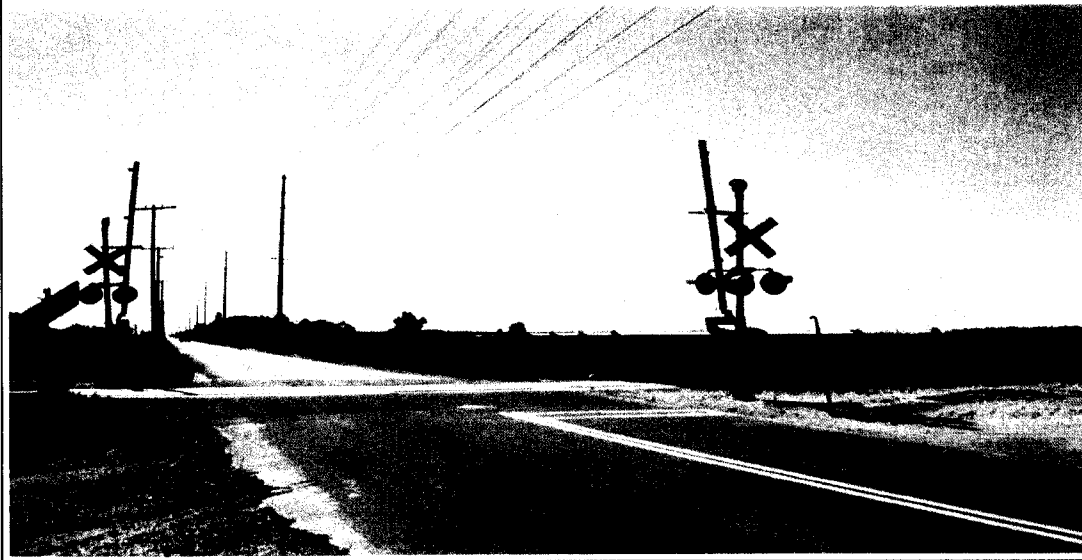
Guido, F. (ed). 1950. *Tidewater Southern Railway*. The Western Railroader 13(11)[No.131]:3-13. Northern California Railroad Club, San Mateo.

Hohenthal, H.A., J.E. Caswell, and V. Sonntag. 1972. *Streams in a Thirsty Land*, City of Turlock, California.

Napton, L. K. 1994. *Primary Record From P-39-15 (CA-SJO-256H)-Tidewater Southern Railway (between Lathrop Road and Sprencles Road, Manteca, CA.)*. Document on file, California Historical Resources Information System, Central California Information Center, Stanislaus State University, Turlock, CA.

Shireman, K. 1970. *Tidewater Interurban: A Short History of Electric Interurban Service Between Modesto and Stockton*. Senior Thesis, Department of History, California State College, Stanislaus. Turlock.

L8a. Photograph, Map or Drawing



L8b. Description of Photo, Map, or Drawing (View, scale, etc.) Photo # 18, Looking north from Washington Road, 9-20-02.

L9. Remarks: None

L10. Form Prepared by: (Name, affiliation, and address) James J. Sharpe, CH2M HILL 2485 Natomas Park Drive, Sacramento, CA. Form Reviewed by: Elizabeth D. Calvit, CH2M HILL - Secretary of the Interior-qualified Architectural Historian. NRHP/CRHR eligibility evaluation (see Page 5 of 5) provided by Ms. Calvit.

L11. Date: 1/28/03

DPR 523E (1/95)

\*Recorded by: James J. Sharpe CH2M HILL 2485 Natomas Park Drive, Sacramento, CA. \*Date: 1/28/03 X

**Criteria A:** This segment of the Tidewater Southern Railroad branch evaluated for this project does not appear to meet the criteria for listing in the National Register nor does it appear to be a historical resource for the purposes of CEQA, primarily because of its loss of historic integrity with the replacement of the track in 1945 and the updating of the Washington Road crossing. Therefore the section under evaluation in this form does not appear to have the potential to be a contributor to any larger historic property, nor does the segment appear to meet the criteria individually.

**Criteria B:** This property does not appear to be associated with any individuals who made significant contributions to national, state, or local history as required under Criterion B. This property does not convey any association with W.A. Irwin (Turlock townsite promoter) or any of the well-known historical figures associated with California's major railroads (e.g., Stanford, Crocker, etc).

**Criteria C:** This property does not appear to be an important example of a type, period, or method of construction. No special engineering or construction techniques were known to be used in the construction of this segment of the railroad. Improvements and upgrades to this segment of the railroad have compromised the integrity.

**Criteria D:** The railline is documented and does not appear to be a principal source of important information in this regard.

This property has been evaluated in accordance with Section 15064.5(1)(2)-(3) of the CEQA Guidelines using the criteria outlined in Section 5024.1 of the California Public Resources Code. The property does not appear to meet the criteria for listing in California Register of Historical Places.

Evaluated by Ms. Elizabeth D. Calvit, CH2M HILL. Secretary of the Interior-qualified Architectural Historian.

\* also P-50-000083

P-39-000015

in Stanislaus Co.

CA-570-000256H \*

SITE NAME:

Tidewater Southern Railway

SITE NUMBER:

UP-1, UP-2, UP-3, UP-4, UP-5

QUAD SHEET:

Various; see individual "Railroad Feature Inventory Forms"

S196

PIPELINE LOCATION:

Various; see individual "Railroad Feature Inventory Forms"

Riverbank 7.5'

Manteca 7.5'

Feature Description

The proposed Mojave pipeline crosses the alignment of the Tidewater Southern Railway at five locations, identified as UP-1 through UP-5. It will be noted that these five crossings carry "UP" prefixes, recognizing that the line is currently owned by the Union Pacific, although it was built by the independent Tidewater Southern Railway and owned for many years by the Western Pacific Railroad.

As discussed under "History of Feature," the Tidewater Southern Railway originally comprised three segments: a mainline from Stockton to Modesto; a branch from the mainline to Manteca, south of Stockton; and a branch from Modesto south to Turlock. Sites UP-1 and UP-2 are on the Turlock Branch, UP-3 is on the mainline, and UP-4 and UP-5 are on the Manteca Branch.

The existing tracks reflect various stages of post-World War II modernization undertaken by the Western Pacific, which owned the line after 1917. The two sites on the Turlock Branch (UP-1 and -2) show signs of the most recent modernization. The rails were laid at these points some time after 1966. The track at the one site on the original mainline (UP-3) appears to have been upgraded in the immediate post-war years, with rails dating to some time after 1947. The Manteca Branch was abandoned in the post-war period and all ties and rails have been removed. Only the earthen embankment remains from the branch line at these points.

History of Feature

The Tidewater Southern Railway began as a small interurban electric passenger and freight operation. Although its founders had visions of extending the line as far south as Fresno and to the Southern California coast, the line was always a limited facility in San Joaquin and Stanislaus counties, extending from Stockton to Modesto and from Modesto to Turlock, a distance of less than 50 miles. The independent line was short-lived; it went into service in 1912 and was acquired by the Western Pacific Railroad in 1917. Little by little, it was transformed from electric to steam (later diesel) service; it was always a dual-motive line, with an electric main between Stockton and Modesto and steam branch service south of Modesto and on a small branch to Manteca. By the mid-1930s, passenger service had been discontinued and virtually all of the electric service removed. The line operates today as a feeder branch for the Union Pacific (formerly Western Pacific) service, providing a connection between Modesto and the Union Pacific mainline at Stockton.

(R 50-83  
Sta. Co.)

P-39-000015  
CA SJO-256H

The Tidewater Southern was organized in 1910, with Byron Bearce, a Stockton investor, as president (Strapac, 1973: 3). The original intent of the company was to build an electric railroad from Stockton to Fresno, with possible connections to Bakersfield as well as a branch to connect with the Pacific coast in Ventura County. In its initial (and ultimately its only) phase of construction, the company began laying track north from Turlock toward Modesto and south from Stockton toward Modesto. The key mainline from Stockton to Modesto (UP-3 is on the mainline) was completed as a conventional (steam) railroad in 1912 and electrified in 1913. The southern extension from Modesto to Turlock was completed in 1916 but was never electrified (UP-1 and UP-2 are on the Turlock Branch). A small branch line was built in the initial phase of construction to connect with Manteca, due south of Stockton but not on the main line (UP-4 and UP-5 are on the Manteca Branch). This short branch was never electrified.

On its mainline, the Tidewater Southern used overhead wires to power its locomotives. In its earliest years, the line offered extensive passenger service between Stockton and Modesto; freight service only was offered on the non-electric branches to Manteca and Turlock. Although unprofitable from the outset, passenger service survived until 1932 (Strapac, 1974: 10). Freight service, by contrast was generally quite profitable and the company invested in modern electric and steam locomotives for its freight operations (Western Railroader, 1950: 7).

In 1917, the Western Pacific Railroad purchased a controlling interest in the Tidewater Southern. This purchase was part of a substantial expansion program by the WP, designed to extend its market through acquisition of existing shortlines which could be operated as feeders for the WP mainline. Incrementally, the Western Pacific transformed the Tidewater Southern from its original electric interurban configuration to a conventional feeder railroad. As noted, the line's passenger service was discontinued in 1932. The same year, the WP began dismantling the electric overheads along the mainline between Stockton and the northern limits of Modesto. The electric lines were retained in Modesto, however, between 1932 and 1946, requiring the use of doubleheaded steam and electric locomotives within that city (Strapac, 1974: 10). In 1946, the last of the electric lines were removed.

After World War II, the Western Pacific began to upgrade the mainline long-haul freight traffic and abandoned some of its branches. The WP brought in new diesel locomotives for the Tidewater Southern, some of which were used on the Sacramento Northern WP subsidiary as well. This heavier equipment required a heavier rail and virtually all of the track was replaced after 1945 (*Western Railroader* 1950: 11). In time, the Tidewater Southern abandoned its Manteca Branch; however, the line is still in active use along the Modesto to Stockton mainline as well as the Turlock Branch.

### Evaluation of Feature

The five sites associated with the Tidewater Southern Railway do not appear to be eligible for listing in the National Register of Historic Places because they do not retain integrity of setting, design, materials, workmanship, feeling and association. Potential significance

(P-56-83 Sta. Co.)

P-39-000015

CA - SJO - 0002504

for this shortline relates chiefly to the fact that it was one of a small number of interurban electric train lines in the San Joaquin Valley. As noted under "History of Feature," all vestiges of the old interurban line were dismantled in the 1930s, when the line was converted to conventional motive power, and in the 1940s, when it was rebuilt for heavier diesel locomotives. The Manteca Branch was affected most dramatically when the branch was abandoned and the track removed. The existing line is almost entirely a product of the post-World War II period, with only the alignment serving as a reminder of its past use as an interurban. Track on the Turlock Branch dates to the late 1960s; track on the main line dates to the late 1940s; there is no track on the Manteca Branch. Because they lack integrity to the potential period of significance for the line, these five sites do not appear to meet the eligibility criteria for listing in the National Register.

P.50-83  
 Riverbank 7.5'  
 U.P. 1, U.P. 2

FOR CONTINUATION SEE SHEET #36

7th Street Bridge

37° 37' 30"

121° 00'

11 860 000 FEET

(BRUSH LAKE)  
 1750 U.S.E.

Mapped, edited, and published by the U.S. Geological Survey  
 Control by USGS and NOS/NOAA

Topography by photogrammetric methods from aerial photographs taken 1967. Field checked 1969  
 Supersedes map dated 1914, revised 1953

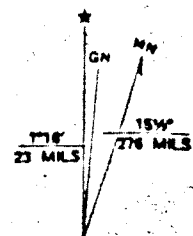
Polyconic projection. 1927 North American datum  
 10,000-foot grid based on California coordinate system, zone 3  
 1000-meter Universal Transverse Mercator grid ticks, zone 10, shown in blue

To place on the predicted North American Datum 1983,  
 move the projection lines 12 meters north and  
 91 meters east as shown by dashed corner ticks

There may be private inholdings within the boundaries of  
 the National or State reservations shown on this map

Red tint indicates areas in which only landmark buildings are shown  
 Fine red dashed lines indicate selected fence lines

FOR CONTINUATION



UTM GRID AND 1967 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET



State of California The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # P-50-00083 <sup>new seg</sup>  
HRI # \_\_\_\_\_  
Trinomial CA-STA-425H  
NRHP Status Code 6Z

Other Listings \_\_\_\_\_  
Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_

Page 1 of 3 + map \*Resource Name or #: (Assigned by recorder) Tidewater Southern Railroad Abandonment

P1. Other Identifier: \_\_\_\_\_ (grade)

\*P2. Location:  Not for Publication  Unrestricted

\*a. County Stanislaus and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

\*b. USGS 7.5' Quad Salida 7.5' Date T35 R9E of N 1/2 of Sec 8; M.D.B.M.

c. Address \_\_\_\_\_ City \_\_\_\_\_ Zip \_\_\_\_\_

d. UTM: (Give more than one for large and/or linear resources) Zone 10, 676023 mE/ 4173758 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Crosses the San Joaquin Pipelines around MP 73.50.

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Tidewater Southern Railway Abandonment runs north-south and crosses the San Joaquin Pipeline (SJPL) at around MP 73.50. As an abandonment, no extant tracks are located along the railroad right-of-way. A slightly raised berm covered with ballast is the only remaining evidence of the railroad line.

2/2012

\*P3b. Resource Attributes: (List attributes and codes) HP39 -- other

\*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  Other (Isolates, etc.)

P5b. Description of Photo: (view, date, accession #) Tidewater Southern Abandonment, looking north

\*P6. Date Constructed/Age and Source:  Historic  Prehistoric  Both  
1912 (Brotherton, 1981)

\*P7. Owner and Address:  
Union Pacific Railroad  
1400 Douglas Street  
Omaha, NE 68179

\*P8. Recorded by: (Name, affiliation, and address)  
Carey & Co.  
460 Bush Street  
San Francisco, CA. 94108

\*P9. Date Recorded:  
8/13/2007

\*P10. Survey Type: (Describe)  
Intensive Survey



\*P11. Report Citation: (Cite survey report and other sources, or enter "none")

San Francisco Public Utilities Commission, San Joaquin Pipeline Existing Conditions Report, 2007.

\*Attachments:  NONE  Location Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Feature Record  Milling Station Record  Rock Art Record  
 Artifact Record  Photograph Record  Other (List): \_\_\_\_\_

**BUILDING, STRUCTURE, AND OBJECT RECORD**

\*NRHP Status Code 6Z

Page 2 of 3 \*Resource Name or # (Assigned by recorder) Tidewater Southern Railroad Abandonment

B1. Historic Name: Tidewater Southern Railroad Abandonment

B2. Common Name: Union Pacific Railroad

B3. Original Use: Transportation B4. Present Use: Transportation

\*B5. Architectural Style: N/A

\*B6. Construction History: (Construction date, alterations, and date of alterations)  
Constructed in 1912.

\*B7. Moved?  No  Yes  Unknown Date: \_\_\_\_\_ Original Location: \_\_\_\_\_

\*B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown

\*B10. Significance: Theme Central Valley Railroad Development Area Northern California

Period of Significance 1912 Property Type Railroad Applicable Criteria n/a

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The Tidewater Southern Railway began as an interurban electric passenger and freight line. It stretched from Stockton to Modesto and then from Modesto to Turlock. The line was established in 1912 and was purchased by the Western Pacific railroad in 1917, when the Modesto to Turlock branch was converted to steam power. By the 1930s, the line no longer carried passengers and was primarily steam driven. It later became part of the Union Pacific system and is now abandoned (Brotherton, 1981).

(See continuation sheet.)

B11. Additional Resource Attributes: (List attributes and codes) HP39 -- other

\*B12. References:

Brotherton, Jack. "Central Pacific Dominated Stanislaus County Railroad." Stanislaus Stepping Stones, vol. 5, no. 2. Modesto, CA: Stanislaus County Historical Society, 1981.

B13. Remarks:

\*B14. Evaluator: E. Schultz & A. Vanderslice, Carey & Co.

\*Date of Evaluation: 8/13/2007

(This space reserved for official comments.)





\*Recorded by: Carey & Co. Inc.

\*Date: 8/13/2007

Continuation

Update

### B10. Significance (continued)

The Tidewater Southern Railway does not appear to be eligible for the National Register or the CRHR, since it lacks sufficient historic significance and integrity. The Tidewater Southern Railway's inferred period of significance dates to 1912 when it was constructed. It was one of several electric interurban passenger lines serving the San Joaquin Valley from the 1910s to the 1930s, and the abandonment was the main line for the Tidewater railway from Stockton to Modesto. This rail line is an expansion of existing lines, although it did specifically cater to local passenger service, and does not mark a significant event or shift in local settlement. The rail was also not the first interurban or electric rail introduced in the area, and therefore, is not associated with the introduction of interurban electric rail to the valley. Therefore, it is not significant under National Register Criterion A or CRHR Criterion 1. The Tidewater Southern Railway does not have significance under National Register Criterion B or CRHR Criterion 2. Research has not found this railway to have any significant associations with any person of historical significance. The Tidewater Southern Railway does not have significance under National Register Criterion C or CRHR Criterion 3. It is one of many railroads in the San Joaquin Valley, including other interurban lines, and does not exhibit unusual or exemplary construction techniques or workmanship. Additionally, it does not appear that the railway abandonment has the potential to yield information important to the prehistory or history of the local area, state, or the nation. The Tidewater Southern Railway maintains poor physical integrity due to the removal of the original tracks and all other equipment when the line was abandoned. Although the resource may retain some integrity related to its inferred period of significance, the resource lacks historic significance, and therefore, does not appear to be eligible for the National Register or the CRHR.

P-50-000083  
CA-STA-42SH



salida  
~~River~~ USGS 7.5'

0.3 MI TO CALIF 108 T  
RIVERBANK 5 MI

(RIVERBANK)  
1855 III NW

42'30"

4175

4174

4172

4171

40'

State of California — The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # *P-50-000083*  
HRI #  
Trinomial *CA-STA-425H*  
NRHP Status Code

Other Listings  
Review Code

Reviewer

Date

Page 1 of 4

\*Resource Name or #: Tidewater Southern Railway (1910-1987)

P1. Other Identifier: Union Pacific Railroad (1987 to present)

*4/09*

\*P2. Location:  Not for Publication  Unrestricted

\*a. County: Stanislaus

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

\*b. USGS 7.5' Quad: Ceres Date: 1963 rev 1987 T 4S R 9E N/E¼ of N/W¼ of Sec21 ; M.D. B.M.

c. Address: City: Ceres Zip:

d. UTM: Zone: 10 Point A: 677991 mE/ 4160357 mN  
Point B: 677982 mE/ 4160561 mN (G.P.S NAD 84.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: Elv 80'

From Ceres CA take East Service Road west 2.6 miles to where the railroad line intersects with the road. The railroad is parallel with Morgan Road to the east and Crows Landing Road to the west.

The track segment length is 405 feet. Railroad mile marker 35.75.

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

There is a single set of standard gauge railroad tracks sitting on wood timber ties and set on a slightly raised bed of course granite ballast. The rails are still used for the transportation of goods on the line that ran from Modesto Junction to Hatch with continuation to Turlock. The surrounding landscape is flat, agricultural land with occasional light industrial complexes.

\*P3b. Resource Attributes: (List attributes and codes) AH-7 (Railroad grade).

\*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #)  
View looking northeast. February 2009.

\*P6. Date Constructed/Age and Sources:  Historic  
 Prehistoric  Both  
Line was constructed in 1916.  
History of the Tidewater Southern Railway, Dreams of Empire 1910-1917, [www.tidewatersouthern.com](http://www.tidewatersouthern.com)

\*P7. Owner and Address:  
Union Pacific Railroad Company  
Omaha, Nebraska

\*P8. Recorded by:  
Pamela Daly, M.S.H.P.  
Cultural Research Assoc.  
295 E. 8<sup>th</sup> Street  
Chico, CA 95928

\*P9. Date Recorded: 3/20/2009

\*P10. Survey Type: Pedestrian

\*P11. Report Citation: Cultural Resources Inventory for the Hughson-Grayson 115V Transmission Line and Substation Project in Stanislaus County, California.

\*Attachments:  NONE  Location Map  Sketch Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Feature Record  Milling Station Record  Rock Art Record  
 Artifact Record  Photograph Record  Other (List):

DPR 523A (1/95)

\*Required information

**BUILDING, STRUCTURE, AND OBJECT RECORD** *CA-STA-4254*

Page 2 of 4

\*NRHP Status Code

\*Resource Name or # Tidewater Southern Railway

- B1. Historic Name: Tidewater Southern Railway (1910 to 1996)
- B2. Common Name: Union Pacific Railroad (UPRR) (1996 to present)
- B3. Original Use: Local freight and passenger railroad line B4. Present Use: Freight railroad line

\*B5. Architectural Style: Standard gauge railroad tracks

\*B6. Construction History: (Construction date, alterations, and date of alterations)

The rail lines were constructed from Stockton starting in 1910. Service to Modesto began in 1912. Extended to Turlock in 1916 and to Hilmar in 1917. The rail line was started with steam locomotives, but switched to electric overhead service in 1913.

\*B7. Moved?  No  Yes  Unknown Date: Original Location:

\*B8. Related Features: bridges, canals, etc.

B9a. Architect:

b. Builder: Robert Engineering Company

\*B10. Significance: Theme: Transportation/Railroad

Area: San Joaquin Valley

Period of Significance: 1910 to 1917 Property Type: Inter-urban Railroad System

Applicable Criteria: NR/CR

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The Tidewater & Southern Railway Company filed corporation papers in October of 1910. Shares of stock were issued to support the construction of a standard gauge railroad line from Stockton south to Turlock, with long range plans to build all the way south to connect with the Ventura County Railroad. After two years, The Tidewater & Southern Railway Company had only put down four miles of rail line and it merged with the Tidewater & Southern Transit Company in 1912 to form the Tidewater Southern Railway. After the merger almost 33 miles of new track was laid from Stockton to Modesto. The Stockton Hotel (which still stands on El Dorado Street in Stockton) was the joint terminal office of the Tidewater Southern Railway and the Central California Traction Company. With the popularity of the automobile in the 1920s and 1930s, the rail line became more dedicated to hauling freight from the small towns to Stockton for shipping downriver. The Railway changed majority ownership many times until being bought in its entirety by Union Pacific Railroad in 1996.

While the Tidewater Southern Railway line appears eligible for listing in the National Register and California Register under Criteria A/1 for being an important inter-urban railroad transportation line, this small segment is not eligible as it has been continually upgraded with the replacement of rails, ties, ballast bed, crossing guards and other related equipment. The segment has not retained the historical integrity of materials, workmanship, setting and feeling. It is not eligible for listing in the National or California Register.

B11. Additional Resource Attributes: (List attributes and codes) AH 7 (Railroad grades)

\*B12. References:

History of the Tidewater Southern Railway, Dreams of Empire 1910-1917, [www.tidewatersouthern.com](http://www.tidewatersouthern.com)

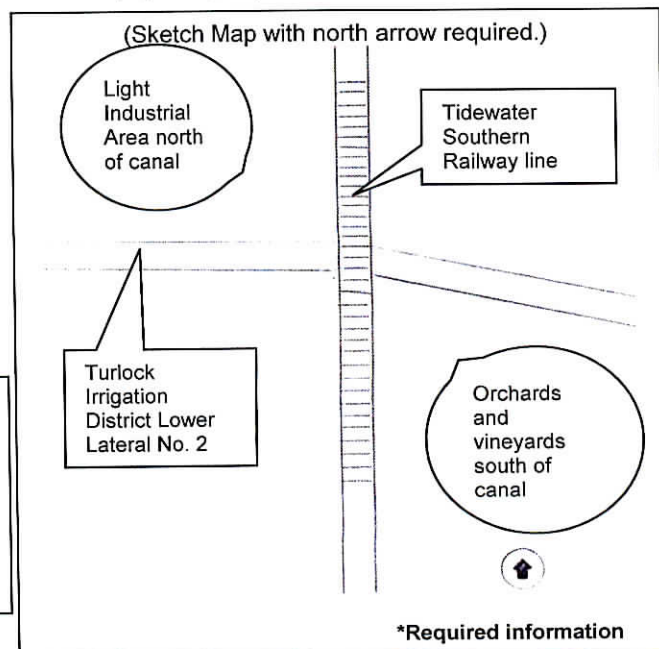
B13. Remarks: The proposed project for which this survey was performed will not physically impact the railroad line.

\*B14. Evaluator:

Pamela Daly, M.S.H.P.,  
Cultural Research Assoc.,  
295 E. 8<sup>th</sup> St.,  
Chico, CA 95928

\*Date of Evaluation: March 18, 2009

(This space reserved for official comments.)



Page 3 of 4

Resource Name or #: **Tidewater Southern Railway**

L1. **Historic and Common Name:** Tidewater Southern Railway/Union Pacific Railroad

L2a. **Portion Described:**  Entire Resource  Segment  Point Observation **Designation:**

**b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map)

UTM: Zone: 10 Point A: 677991 mE/ 4160357 mN

Point B: 677982 mE/ 4160561 mN (G.P.S NAD 84.)

Railroad mile marker 35.75

**L3. Description:**

A 400 foot section of standard gauge railroad track. The single set of rails are placed on wood ties and sit in a slightly elevated bed of rock ballast.

The Tidewater Southern Railway was an interurban rail line that ran from Stockton to Turlock. The rail lines are now owned by Union Pacific Railroad.

**L4. Dimensions:** (In feet for historic features and meters for prehistoric features)

**Standard gauge railroad tracks:** 4 feet 8 1/2 inches apart.

**a. Top Width:**

**b. Bottom Width:**

**c. Height or Depth:**

**d. Length of Segment:** 404 feet

**L4e. Sketch of Cross-Section** (include scale) **Facing:**

**L5. Associated Resources:**

Turlock Irrigation District Lower Lateral No. 2.

**L6. Setting:** (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

Light industrial setting, orchards and agricultural land.

**L7. Integrity Considerations:** Good, line is still in use by Union Pacific Railroad. While the Tidewater Southern Railway line appears eligible for listing in the National Register and California Register, this small segment is not eligible as it has been continually upgraded with the replacement of rails, ties, ballast bed, crossing guards and other related equipment. The segment has not retained the historical integrity of materials, workmanship, setting and feeling. It is not eligible for listing in the National or California Register.

**L8a. Photograph, Map or Drawing**



**L8b. Description of Photo, Map, or Drawing**

View looking south from intersection of railroad line and East Service Road.

**L9. Remarks:**

The proposed project will not physically impact the railroad tracks.

**L10. Form Prepared by:**

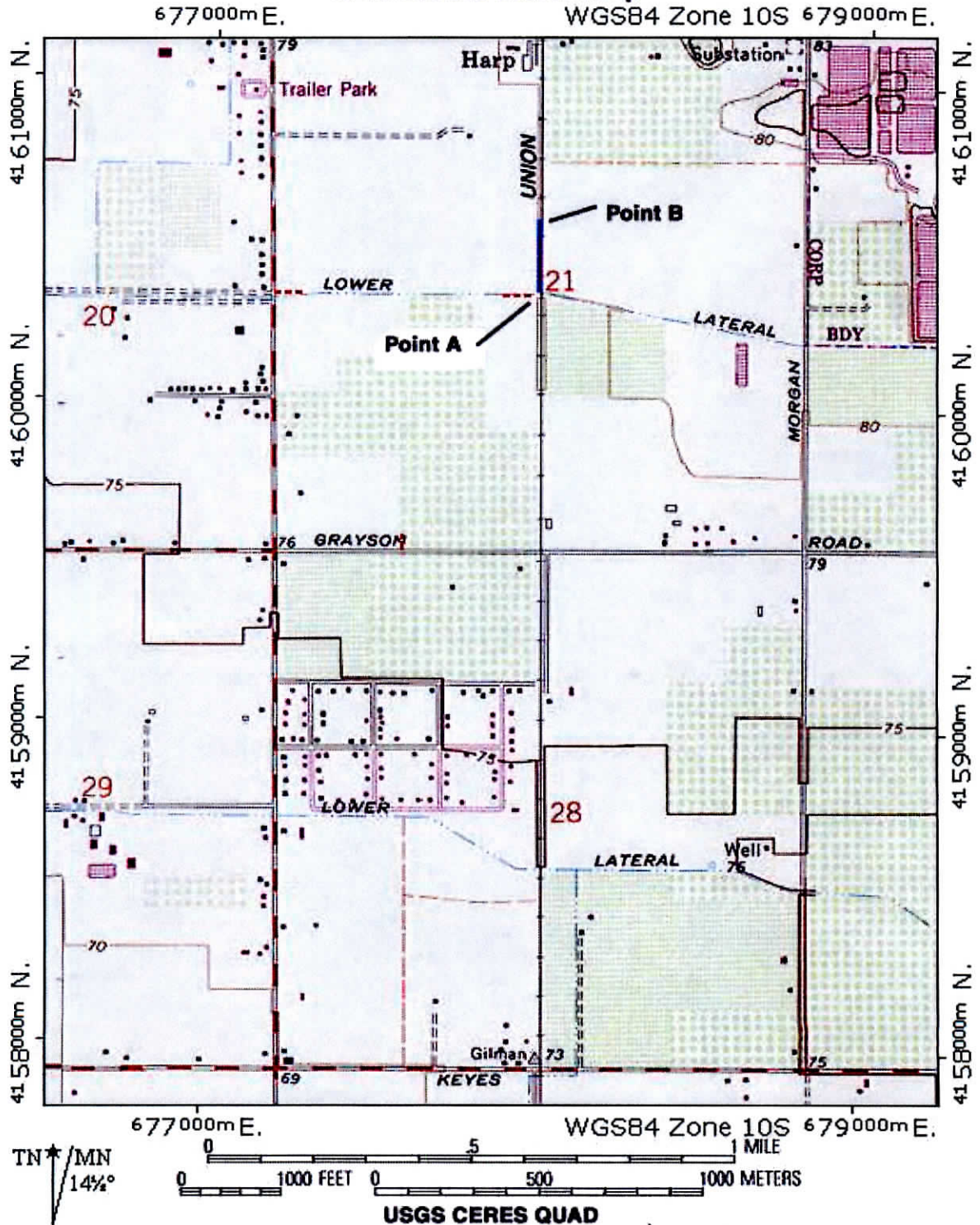
Pamela Daly, M.S.H.P.  
Cultural Research Assoc.  
295 E. 8<sup>th</sup> Street  
Chico, CA 95928

**L11. Date:** 3/20/2009

DPR 523E (1/95)

# LOCATION MAP

## UPRR-002 Site Location Map



State of California — The Resources Agency  
 DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # P-50-000084  
 HRI # \_\_\_\_\_  
 Trinomial CA-STA-000393H  
 NRHP Status Code \_\_\_\_\_

Page 1 of 5  
 Other \_\_\_\_\_  
 Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_

P1. Resource Identifier: Thurman Field Scatter

P2. Location: a. County Stanislaus and (Address and/or UTM Coordinates. Attach Location Map as required.)

b. Address \_\_\_\_\_ Zip \_\_\_\_\_  
 City Modesto

c. UTM: USGS Ceres (7.5'/15') Date 1987; Zone 10, see P2.d mE/ see P2.d mN

d. Other Locational Data (e.g., parcel #, legal description, directions to resource, additional UTM's, etc., when appropriate):  
 From Hwy 99 take Tuolumne Road exit north to Neece Rd. Turn right on Neece Rd. And drive .3 miles to the datum, which is a light pole on the east side of Neece Rd. The site is adjacent to and surrounds the datum. NW 1/4 of NE 1/4 of Section 15, T4S, R9E. NW pt.=676,660 mE/ 4,165,800 mN. NE pt.=676,710mE/ 4,165,800mN. SE pt.=676,690 mE/ 4,165,520 mN. SW pt.=676,610 mE/ 4,165,480 mN.

P3. Description (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries.):  
 Resource is a historic artifact deposit and scatter. There are 4 artifact concentrations. The largest concentration shows evidence of extensive pot hunting. Artifacts have eroded along with the soil, and are strewn the entire width of the slope to the Tuolumne River below. The largest of the pot holes was dug to a depth of approximately 27 inches. A burn layer occurs from 21 inches to 27 inches.

P4. Resources present:  Building  Structure  Object  Site  District  Element of District

P5. Photograph or Drawing (Photograph required for buildings, structures, and objects)

P6. Date Constructed/Age:  
 Prehistoric  Historic  Both

P7. Owner and Address:  
 City of Modesto  
 801 Eleventh Street  
 Modesto, CA 95353

P8. Recorded by (Name, affiliation, and address):  
 T. Fernandez  
 Jones & Stokes Associates, Inc.  
 2600 V Street, Suite 100  
 Sacramento, CA 95818-1914

P9. Date 8-1-96

P10. Type of Survey:  Intensive  
 Reconnaissance  Other

Describe: \_\_\_\_\_

P11. Report Citation (Provide full citation or enter "none"): Jones & Stokes Associates, Inc. 1996. Cultural resources inventory report for the City of Modesto Thurman Field Project. Sacramento, CA. Prepared for the City of Modesto Community Development Department.

Attachments:  NONE  Map Sheet  Continuation Sheet  Building, Structure, and Object Record  Linear Resource Record  
 Archaeological Record  District Record  Milling Station Record  Rock Art Record  Artifact Record  Photograph Record  
 Other (List): Map Sheets: Site Location and Site

ARCHAEOLOGICAL SITE RECORD (Part 1)

Primary # P50-000084  
Trinomial CA-STA-000393H

Page 2 of 5

A1. Resource Identifier: Thurman Field Scatter

A2. Resource Attributes (List attributes and codes.): \_\_\_\_\_

A3. Dimensions: a. Length 320 (ft.) x b. Width 80 (ft.)  
Method of Measurement:  Paced  Taped  Visual estimate  Other: \_\_\_\_\_

Method of Determination (Check any that apply.):  Artifacts  Features  Soil  Vegetation  Topography  
 Cut bank  Animal burrow  Excavation  Property boundary  Other (Explain): \_\_\_\_\_

Reliability of Determination:  High  Low Explain: \_\_\_\_\_

Limitations (Check any that apply):  Restricted access  Paved/built over  Disturbances  
 Site limits incompletely defined  Other (Explain): \_\_\_\_\_

A4. Depth: ~ 27 inches  None  Unknown Method of Determination: tape measured pot hole

A5. Human Remains:  Present  Absent  Possible  Unknown (Explain): \_\_\_\_\_

A6. Features (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on sketch map.):

Only features associated with this site are pot holes and undulating soil which may be a result of older, grown over potholes.

A7. Cultural Constituents (Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features.):

Artifacts observed include: burn-fused glass, metal and concrete; 1 porcelain button; 1 shell button; 2 square molded clear glass bottles with "The Jones-Paddock Co San Francisco"; melted glass; patina glass fragments; cobalt blue glass bottle fragments; thick cloudy green glass fragments; amethyst glass fragments; green molded glass fragments; square molded clear glass bottle fragments; patina window glass; light-fixture glass fragments; 1 metal barrel ring; red brick fragments; porcelain saucer fragment with gold leaf and rose design; large stoneware with a light outside wash and brown glaze inside; rice bowl fragment with blue transfer print; large burnt brick fragments; corroded metal pieces; two broken pieces of river-rock-encased-cement; broken concrete slabs with heavy aggregate; broken concrete slabs with a light aggregate; chicken wire and mortar; bed springs; butchered and burnt bone fragments.

A8. Were Specimens Collected?  No  Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated.)

A9. Site Condition:  Good  Fair  Poor (Describe disturbances.):

Extensive pot holes, assumed that many artifacts of commercial value to amateurs and diagnostic value to professionals were taken.



ARCHAEOLOGICAL SITE RECORD (Part 2)

Resource Identifier: Thurman Field Scatter  
Primary # P-50-000084  
Trinomial CA-STA-000393H

Page 3 of 5

A10. Nearest Water (Type, distance, and direction.):

Tuolumne River, east and adjacent to site.

A11. Elevation: 85 feet

A12. Environmental Setting (Describe vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc., as appropriate.):

Vegetation at this site is characteristic of the Valley Foothill Riparian Habitat, which is associated with low velocity river flow. This habitat is home to at least 50 amphibians and reptiles, 147 bird species, and 55 mammal species. Dominant tree species include the cottonwood, California sycamore, valley oak, white alder, boxelder, Oregon Ash, and willows. Shrubs include wild grape, wild rose, California blackberry, blue elderberry, poison oak, and button brush. Also in this habitat exist sedges, rushes, grasses, miner's lettuce, Douglas sagewort, poison hemlock, and hoary nettle. Slope at the site ranges from 0% to 60%.

A13. Historical Information (Note sources and provide full citations in Field A16 below.):

See Jones & Stokes Associates, Inc. 1996. Cultural Resources Inventory Report for the City of Modesto Thurman Field Expansion Project. Sacramento, CA. Prepared for City of Modesto Community Development Department. Modesto, CA.

A14. Age:  Prehistoric  Pre-Colonial (1500-1769)  Spanish/Mexican (1769-1848)  Early American (1848-1880)  
 Turn of century (1880-1914)  Early 20th century (1914-1945)  Post WWII (1945+)  Undetermined  
Factual or Estimated Dates of Occupation (Explain):

A15. Remarks and Interpretations (Discuss scientific, interpretive, ethnic, and other values of site, if known.):

A16. References (Give full citations including the names and addresses of any persons interviewed, if possible.):

See Jones & Stokes Associates, Inc. 1996. Cultural Resources Inventory Report for the City of Modesto Thurman Field Expansion Project. Sacramento, CA. Prepared for City of Modesto Community Development Department. Modesto, CA.

A17. Photographs (List subjects, direction of view, and accession numbers or attach a Photograph Record.): \_\_\_\_\_

Original Media/Negatives Kept at: \_\_\_\_\_

A18. Form Prepared by: T. Fernandez Date: 8-1-96  
Affiliation and Address: Jones & Stokes Associates, Inc. 2600 V Street, Suite 100,  
Sacramento, CA 95818.

# Map Sheet

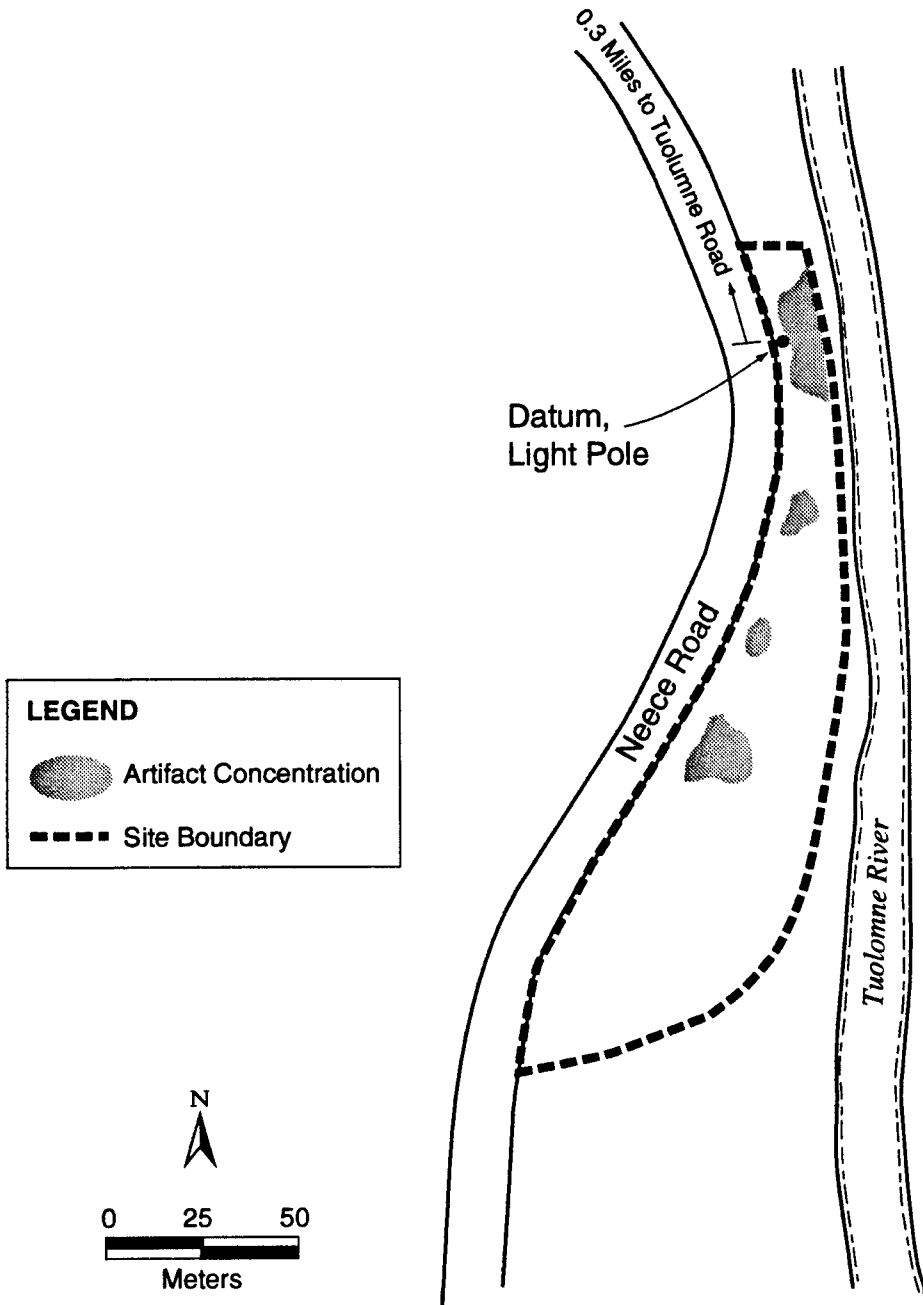
Page 4 of 5

Resource Identifier: Thurman Historic Artifact Deposit

Map Name: Site Map

Scale: 1" = 50m

Date: 8-1-96



# Map Sheet

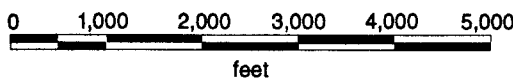
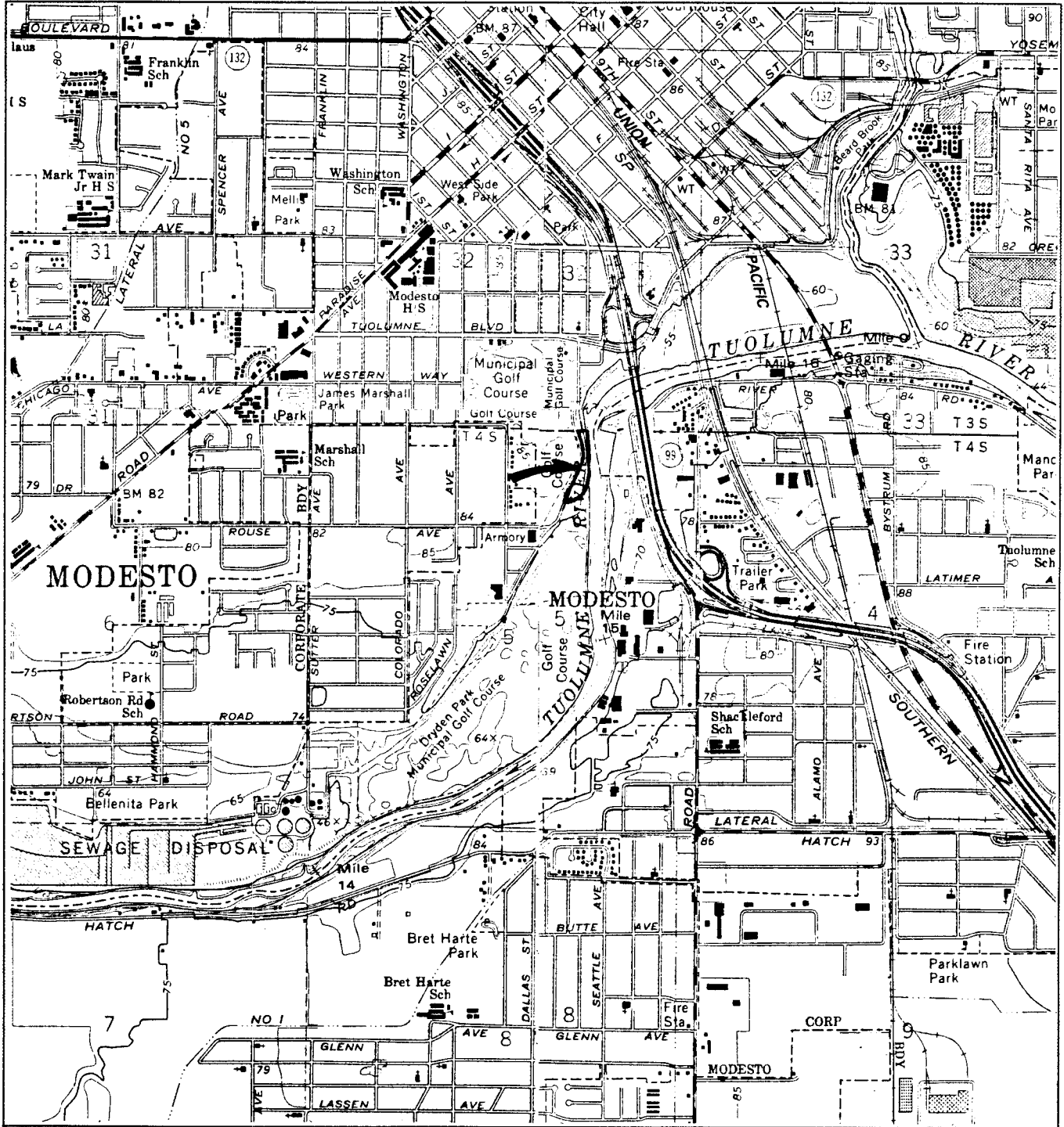
Page 5 of 5

Resource Identifier: Thurman Historic Artifact Deposit

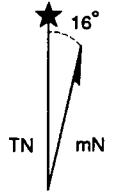
Map Name: Site Location Map

Scale: 1:24,000 (1" = 2,000')

Date: 8-1-96



Base map: USGS Salida, Riverbank, Brush Lake,  
and Ceres, California 7.5-minute quadrangles.



CALIFORNIA DEPARTMENT OF TRANSPORTATION  
ARCHITECTURAL INVENTORY/EVALUATION FORM

P-50-000438

MAP REFERENCE NO. 3

County - Route - Postmile:

LISTED  
 APPEARS ELIGIBLE

DETERMINED ELIGIBLE  
 APPEARS INELIGIBLE

IDENTIFICATION

1. **Common Name:** Lion's Market

2. **Historic Name:** Sanders Bros. Market

3. **Street or rural address:** 439 Seventh Street

**City:** Modesto

**Zip Code:** 95351

**County:** Stanislaus

4. **Parcel Number:** 38-03-11

**Present Owner:**

**Address:** 439 Seventh Street

**City:** Modesto

**Zip Code:** 95351

5. **Ownership is:**  Public

Private

6. **Present Use:** Market

**Original Use:** Market

Riverbank 7.5'

10/98

DESCRIPTION

7a. **Architectural Style:** Modern

7b. **Briefly describe the present PHYSICAL CONDITION of the site or structure and describe any major alterations from its original condition:** This one-story rectangular building has a front gable roof clad in asphalt shingles. The front facade consists of a pedimented false front with a central louvre. The building is concrete block, with the front elevation clad in stucco. The central front wooden door is modern and flanked by two frame windows, with plywood covering the lower half of the sash. Modern metal grilles cover the windows and doorway.



8. **Construction date** 1947  
**Estimated:**  **Factual:**

9. **Architect:** Unknown

10. **Builder:** Unknown

11. **Approx. property size (in feet)**  
**Frontage:** **Depth:**  
9.32 acres

12. **Date(s) of enclosed photograph(s):**  
March 1996

13. Condition: Excellent  Good  Fair  Deteriorated

14. Alterations: Lower portion of windows boarded up, metal grilles.

15. Surroundings: (Check more than one if necessary) Open land  Scattered buildings  Densely built-up   
Residential  Industrial  Commercial  Other:

16. Threats to site: None known  Private Development  Zoning  Vandalism  Public Works Project   
Other:

17. Is the structure: On its original site?  Moved?  Unknown?

18. Related features: Del Rio Mobile Home Park

**SIGNIFICANCE**

19. Briefly state historical and/or architectural importance (include dates, events, and persons associated with the site): The Lion's Market building was constructed ca. 1947 to service the adjacent Shady Acres Court, now known as the Del Rio Mobile Home Park (Stanislaus County Assessor's Files). In 1957 the trailer court consisted of Sanders Bros. Grocery (Lion's Market), Tex's Garage, U & I Lunch, Ray's Rod and Gun Club, and several trailer homes (Polk Directory 1957). The motor court was established ca. 1920, and was the home of many migratory workers during the Dust Bowl era in Modesto. The cafe was constructed ca. 1934 and other buildings followed in the late 1940s and early 1950s (Don Gaekle, personal communication 1996). Although the building was constructed post-1945, it was included in the inventory as it was built 49 years ago and will reach the 50-year age date by the current Seventh Street Bridge project is completed. The building does not appear to be eligible for inclusion in the NRHP under any of the criteria. Under Criterion A it is associated with the growth and development of Modesto after World War II, but is not associated with any persons significant in history (Criterion B). It does not embody any distinctive architectural characteristics (Criterion C), nor is it likely to yield information important in history (Criterion D).

20. Main theme of the historic resource: (If more than one is checked, number in order of importance.)

- Architecture
- Arts & Leisure
- Economic/Industrial
- Exploration/Settlement
- Government
- Military
- Religion
- Social/Education

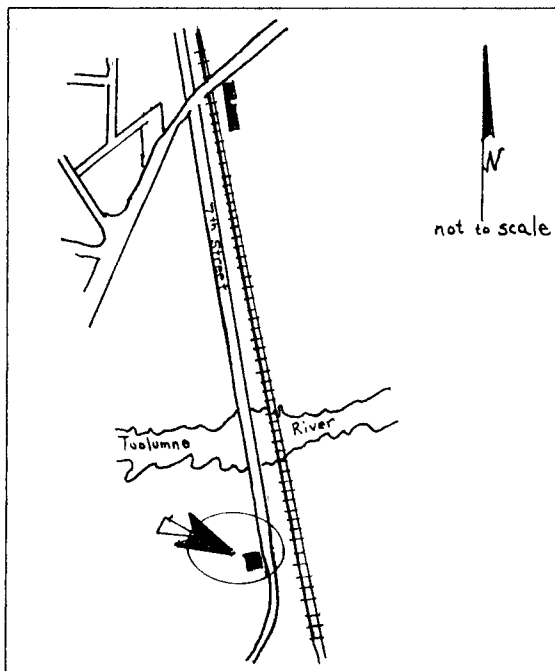
21. Sources (List books, documents, surveys, personal interviews and their dates.)

- Polk Directories, 1920, 1930, 1940, 1957
- Stanislaus County Assessor's Office Files
- Don Gaekle, personal communication 1996

22. Date form prepared: 30 March 1996

By: Judith Marvin  
 Organization: Foothill Resources, Ltd.  
 Address: P.O. Box 2040  
 City: Murphys, CA  
 Zip Code: 95247  
 Phone: (209) 728-1408

Location sketch map (draw & label site and surrounding streets, roads, and prominent landmarks)



P-50-000439

CALIFORNIA DEPARTMENT OF TRANSPORTATION  
ARCHITECTURAL INVENTORY/EVALUATION FORM

MAP REFERENCE NO. 4

County - Route - Postmile:

LISTED  
 APPEARS ELIGIBLE

DETERMINED ELIGIBLE  
 APPEARS INELIGIBLE

Riverbank 75'

IDENTIFICATION

1. Common Name: W. H. Breshears, Inc., Chevron Products

2. Historic Name: Standard Oil of California Products

3. Street or rural address: 720 B Street

City: Modesto

Zip Code: 95351

County: Stanislaus

4. Parcel Number: 102-17-01

Present Owner: W. H. Breshears, Inc.

Address: 720 B Street

City: Modesto

Zip Code: 95351

10/98

5. Ownership is:  Public  Private

6. Present Use: Chevron Distribution

Original Use: Standard Oil Distributorship

DESCRIPTION

7a. Architectural Style: Industrial

7b. Briefly describe the present PHYSICAL CONDITION of the site or structure and describe any major alterations from its original condition: This facility consists of an office, storage buildings, and storage tanks. The office building is modern, as are the storage tanks. Two buildings, now attached, are located on the western boundary of the complex. The small structure on the southwest corner of Seventh and B streets, possibly the original office, is a one-story frame building with corrugated metal gable roof with exposed rafters. The building is clad in corrugated metal siding. Original fenestration consists of a six-light window; all others have been replaced with one-light frame sash. The building has a wood pier foundation. Attached to the corner building is a long, rectangular storage facility with a loading dock on the east elevation. The building has an end-gable roof, covered in corrugated metal, with a shed roof protruding over the loading dock. The entire building is clad in corrugated metal.



8. Construction date 1913, 1946  
Estimated:  Factual:

9. Architect: Unknown

10. Builder: Unknown

11. Approx. property size (in feet)  
Frontage:                      Depth:

12. Date(s) of enclosed photograph(s):  
March 1996

P-50-000439

13. Condition: Excellent  Good  Fair  Deteriorated

14. Alterations: Original six-light windows replaced.

15. Surroundings: (Check more than one if necessary) Open land  Scattered buildings  Densely built-up   
Residential  Industrial  Commercial  Other:

16. Threats to site: None known  Private Development  Zoning  Vandalism  Public Works Project   
Other:

17. Is the structure: On its original site?  Moved?  Unknown?

18. Related features: Modern office building and storage tanks.

**SIGNIFICANCE**

19. Briefly state historical and/or architectural importance (include dates, events, and persons associated with the site): Adjoining and served by the Southern Pacific Railroad, the W. H. Breshears Chevron Products facility was constructed in stages, with the small building on the corner of Seventh and B streets serving as the original office when it was built ca. 1913. The storage facility and loading docks were added ca. 1946 (Stanislaus County assessor's Files). Although it is unknown who constructed the small corner building, it has been utilized by Standard Oil Company as part of the distributorship complex since at least 1940. In 1930 the facility was operated by General Gasoline Company, with the Standard Oil Company facility located at 802 B Street, near Eighth Street. There are no listings for either company in 1920 (Polk Directories, 1920, 1930, 1940, 1957). The Breshears buildings do not appear to be eligible for inclusion in the National Register under any of the criteria. Under Criterion A, they are associated with the growth of the City of Modesto and the San Joaquin Valley when the automobile and truck were replacing the horse and railroad as the primary methods of transportation, and oil and gasoline distribution facilities were developed along railroad lines as transfer stations. The building was evidently constructed by an oil company and operated by a succession of managers and so does not appear to be eligible under Criterion B, nor does it appear to be likely to yield information important in history (Criterion D). Under Criterion C it does not retain any integrity of design or represent the work of a master or embody any distinctive characteristics of construction.

20. Main theme of the historic resource: (If more than one is checked, number in order of importance.)

- Architecture
- Arts & Leisure
- Economic/Industrial
- Exploration/Settlement
- Government
- Military
- Religion
- Social/Education

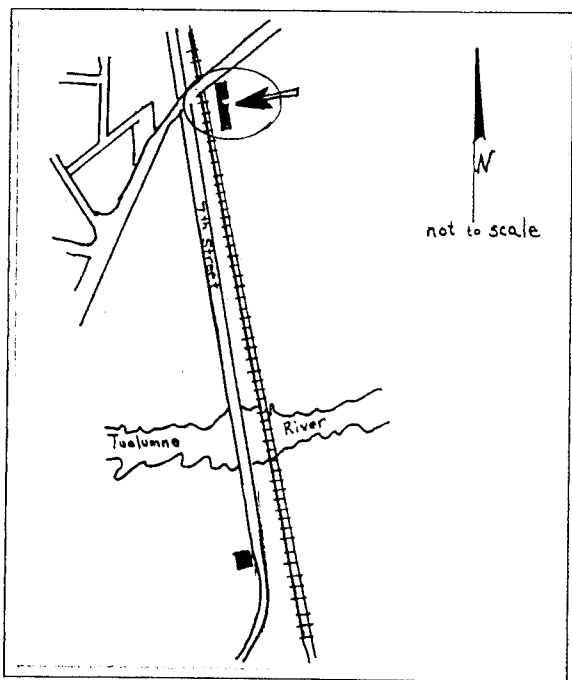
21. Sources (List books, documents, surveys, personal interviews and their dates.)

- Polk Directories, 1920, 1930, 1940, 1957
- Stanislaus County Assessor's Office Files

22. Date form prepared: 30 March 1996

By: Judith Marvin  
 Organization: Foothill Resources, Ltd.  
 Address: P.O. Box 2040  
 City: Murphys, CA  
 Zip Code: 95247  
 Phone: (209) 728-1408

Location sketch map (draw & label site and surrounding streets, roads, and prominent landmarks)



P-50-000514

MAP REFERENCE NO. 25

BRIDGE EVALUATION FORM

(NOTE: This form is only to be used for structure types listed in the Caltrans/FHWA/SHPO Memorandum of Understanding dated December 1980.)

LOCATION: (attach copy of appropriate map showing structure location)

COUNTY: Stanislaus  
ROUTE: N/A  
VICINITY: Modesto  
NAME: Tuolumne River Bridge  
BRIDGE NUMBER: 113.75

11/99  
Riverbank 75  
T. 35/R. 9E, Sec. 32

DESCRIPTION:

TYPE: STANDARD


TYPE OF SUPERSTRUCTURE: Timber stringer trestle with ballast deck approach spans, with timber rails. Main spans consist of: two 100'6" riveted deck girder spans built in 1945 by Bethlehem Steel Co.; one 59'10' riveted deck girder span built in 1944 by Pacific Bridge Co., and relocated to this site from the Feather River; one 60'6" riveted deck girder span built in 1897 by Phoenix Bridge Co. and reinforced in 1944; and one 50' deck girder span built in 1897 by Phoenix Bridge Co. and reinforced in 1944; all with ballast deck.

TYPE OF SUBSTRUCTURE: Timber pile bents beneath timber stringer approach spans; five stone masonry piers and one (south) stone masonry abutment beneath main spans.

HISTORY/DATE OF CONSTRUCTION/DESIGNER: 1897-1945/Southern Pacific Railroad

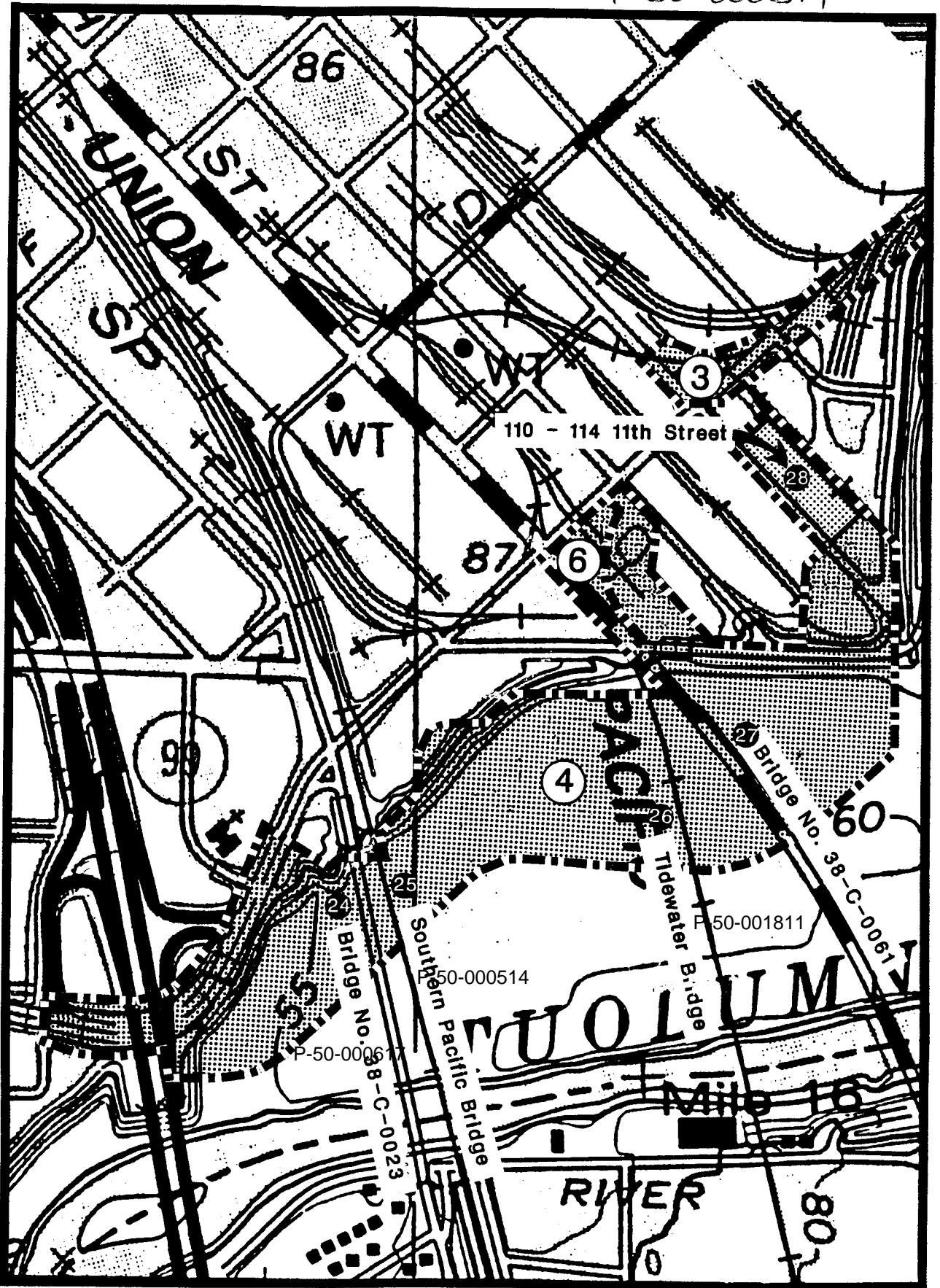
OTHER HISTORICAL INFORMATION (persons, events--e.g. WPA/CCC):

Built in 1897 to replace earlier 1870s crossing of the Tuolumne River. Timber spans continually renewed over the years. Three new main spans in 1944-45, with original main spans heavily rebuilt at that time. Integrity very compromised.

  
PREPARED BY: John W. Snyder, Chief  
Architectural & Historic Studies  
Caltrans

DATE: July 22, 1991





Project Locations #3, 4 & 6 Architectural Study Area: Map ID #24 and 27

P-50-000524

CALIFORNIA DEPARTMENT OF TRANSPORTATION  
ARCHITECTURAL INVENTORY/EVALUATION FORM

MAP REFERENCE NO. 28

County - Route - Postmile: ( ) LISTED ( ) DETERMINED ELIGIBLE  
( ) APPEARS ELIGIBLE (X) APPEARS INELIGIBLE

IDENTIFICATION

1. Common Name: Booth's Packing Company

Riverbank 75'  
T.3.S./R.9E., Sec. 33  
11/99

2. Historic Name:

3. Street or rural address: 110-114 11th Street

City: Modesto Zip Code: 95350 County: Stanislaus

4. Parcel Number: Present Owner:

Address: City: Zip Code:

5. Ownership is: ( ) Public (X) Private

6. Present Use: Warehouse Original Use:

DESCRIPTION

7a. Architectural Style: Industrial

7b. Briefly describe the present PHYSICAL CONDITION of the site or structure and describe any major alterations from its original condition:

This rectangular plan building is of concrete tilt-up construction and has a hipped roof covered with tar roofing paper.

8. Construction date: 1960-61  
Estimated: ( ) Factual: ( )

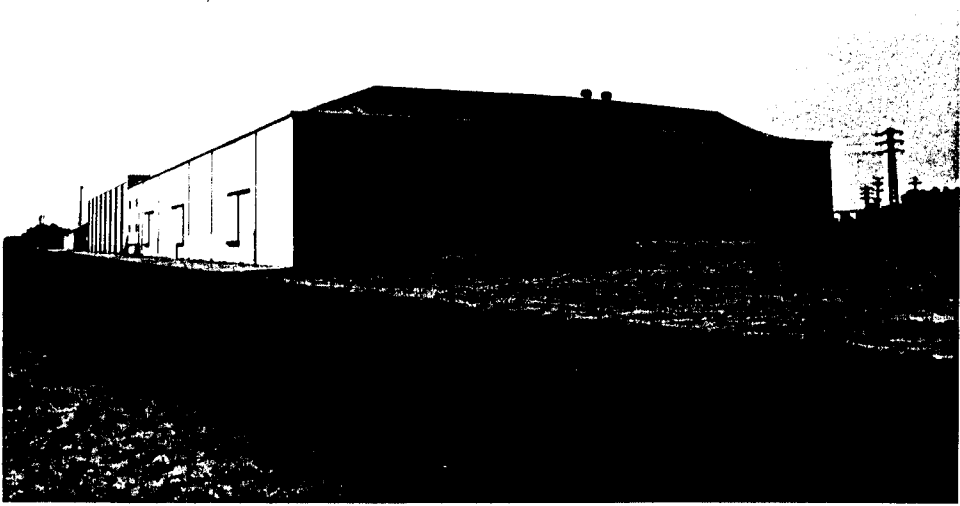
9. Architect:

10. Builder:

11. Approx. property size (in feet)  
Frontage: Depth:

12. Date(s) of enclosed photo(s):  
July, 1991

Photographer: Ward Hill



P50-000584

13. Condition: Excellent ( ) Good ( ) Fair ( ) Deteriorated ( )

14. Alterations:

15. Surroundings: (Check more than one if necessary) Open land ( ) Scattered buildings ( ) Densely built-up ( ) Residential ( ) Industrial ( ) Commercial ( ) Other:

16. Threats to site: None known ( ) Private Development ( ) Zoning ( ) Vandalism ( ) Public Works Project ( ) Other:

17. Is the structure: On its original site? ( ) Moved? ( ) Unknown? ( )

18. Related features:

**SIGNIFICANCE**

19. Briefly state historical and/or architectural importance (include dates, events, and persons associated with the site):

This warehouse was constructed in two phases between 1960 and 1961 (Building Permit # 16174, January, 1960; #23472, September, 1961). The building is not a distinguished example of its type and does not appear to meet the National Register criteria for eligibility for post-1945 buildings.

20. Main theme of historic resource:  
(If more than one is checked, number in order of importance.)

Location sketch map  
(see continuation pages)

- Architecture ( ) Arts & Leisure ( )
- Economic/Industrial ( )
- Exploration/Settlement ( )
- Government ( ) Military ( ) Religion ( )
- Social/Education ( )

21. Sources:

Records of the Office of the Assessor,  
Stanislaus County, Modesto

22. Date Form Prepared: December 3, 1991

By: Ward Hill

Organization: Corbett & Hill

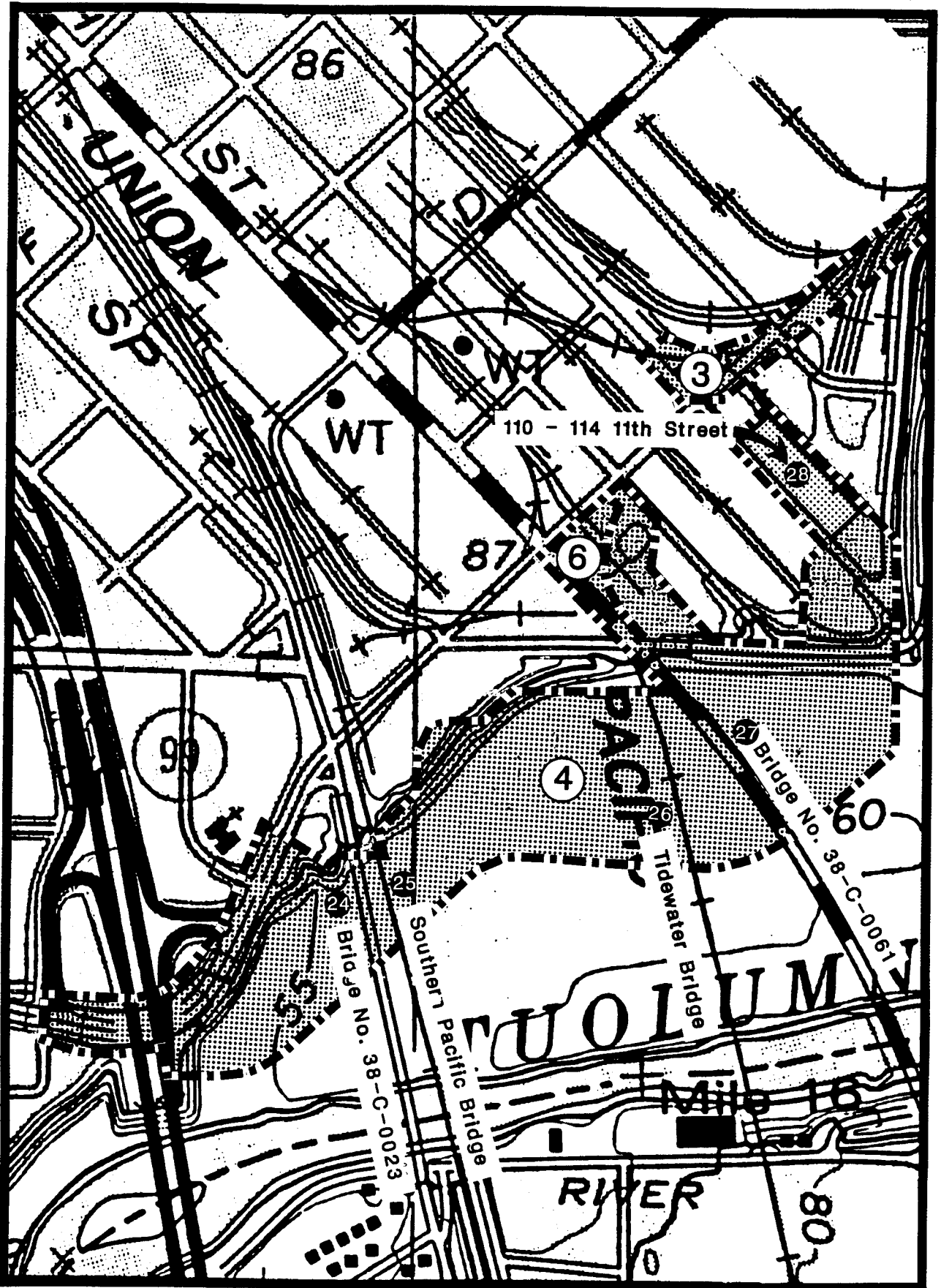
Address: 2054 University Avenue, #505

City: Berkeley

Zip Code: 95704

Phone: (510) 441-4071

P50-000534



Project Locations #3, 4 & 6 Architectural Study Area: Map ID #28 110-114 11th Street

P-50-000617

# 114971

DOE-50-86-0001-0000

CANTICRETE BRIDGE RATING SHEET

252

Bridge #:38C-23  
County: Stanislaus  
District: 10

Common Name: Seventh Street Bridge

Riverbank

7.5'

Feature Intersected: Tuolumne River  
Road: Seventh Street  
Route: Postmile:

RESEARCH STATUS

Invest Int: SDM  
Entry Int: SDM  
Done: yes  
Update: 5/01/86  
Rundate: 08/18/86  
Assign Rate: 3

Routesuf:  
Quad: Riverbank (7.5)  
UTM Zone: 10 E: 677230 N: 4166086  
Lat: 37 37 30 N Long: 120 59 30 W

Ownership:County  
City/Vicinity: in the city/town limits of Modesto  
Date: 1916

Designer: Leonard & Day

This is a major example of a significant designer

Contractor: C.E. Cotton & Co.

Description: MAINSPAN: rein. conc.,  
101 feet long  
BRIDGE: A 35.8 feet wide, 14 spans, 1170 feet long,  
2 lane bridge  
additional spans length: 100; 100;84;84 feet,  
and with a flush walkway

Technical Merit: excellent

Special Features

Lanterns: electroliers; fair condition

Railings: arched window rail

Pylons: yes

Decorative Fascia: none

Distinctive Texture: smooth

Pedestrian Amenities: seating

Transportation/Historical Association: local

Aesthetics:

Site: excellent

Structural: excellent

Integrity:

Location/Setting: excellent

Design/Material: excellent

Feeling/Association: excellent

Plans/Specifications: plans on microfiche at CalTrans

Comments:

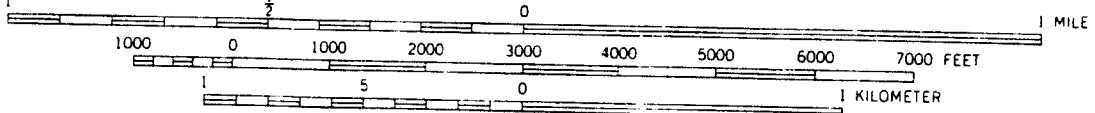
The Seventh Street Bridge is significant under Criteria A and C. It was designed through the collaborative efforts of the engineering firm, Leonard & Day, and architect, Fay Spangler. It is by far the largest extant example of John B. Leonard's "Cantcrete" bridge design. This bridge form, Leonard's invention, involves a cantilevered steel truss encased in concrete. Architecturally, it is the only major example in the San Joaquin Valley of the "City Beautiful" bridge, an urban bridge design of the second decade of this century, always placed at a major entrance to the city and adorned in Beaux Arts classical detail. It is almost completely unmodified.

P 50-000617

Bridge #: 380-23  
Common Name: Seventh Street Bridge  
UTM Zone: 10 E: 677230 N: 4166086  
River: Tuolumne River  
Road: Seventh Street  
Vicinity: Modesto  
State: California

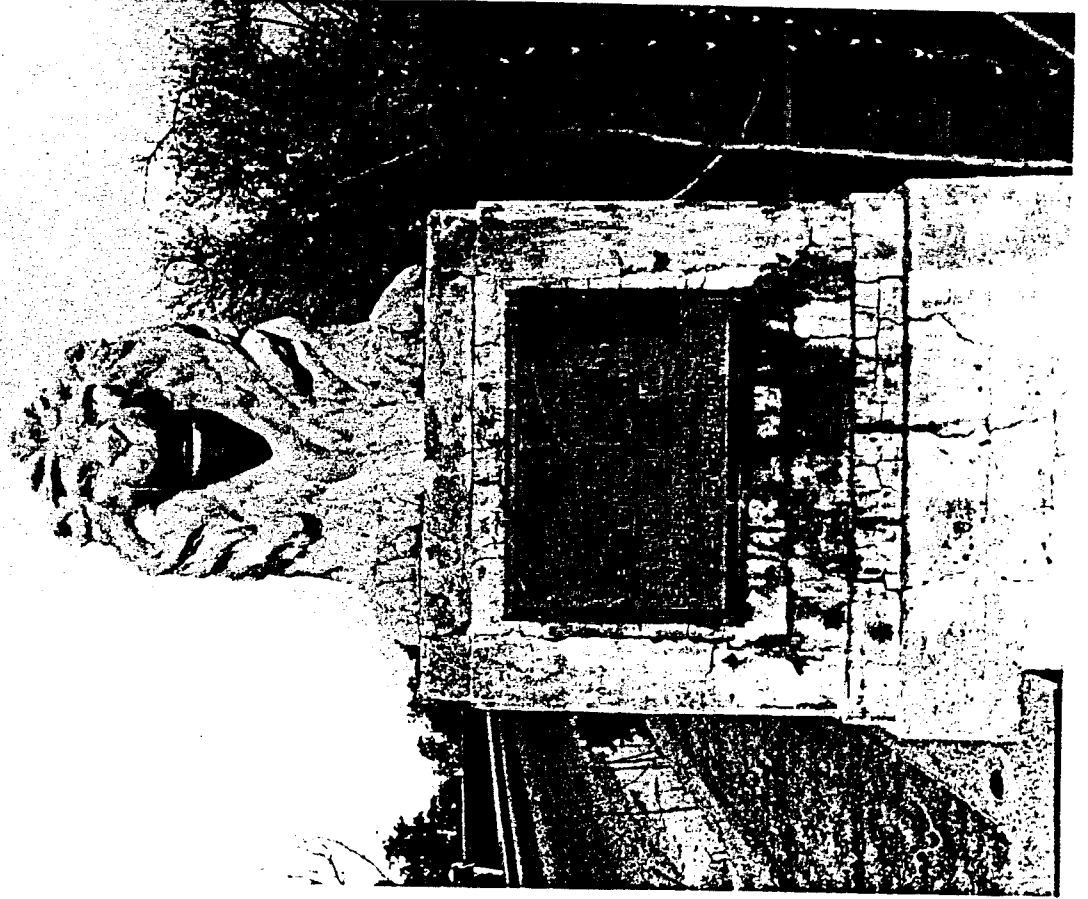


SCALE 1:24 000



CONTOUR INTERVAL 5 FEET  
NATIONAL GEODETIC VERTICAL DATUM OF 1929

P-50-000617



P50-000617

Riverbank 7.5

PROJ.REVW AND RES.PROT.UNIT

LOG-OUT PRINTOUT

HANS KREUTZBERG

Undertaking Identifier: FHWA860919Z

04/02/98 Page: 38

Undertaking Name: THEME DOE FOR CA CONCRETE SPAN BRIDGES

Property number: 114971

BRIDGE #38C-23 / 7TH STREET BRIDGE

Address:

7TH ST  
MODESTO

95354

County: STA

X-Street: TUOLOMNE RIVER

Vicinity:

Parcel #:

Category:

S

# of Props:

Owner Type:

C

Pres. Use: P

Other Recognition:

CHL #:

Dates of Construction: 1916 -

Architect: LEONARD & DAY

Builder:

Historic Attributes: 19,95

Eth:

Previous Determinations on this property:

Program	Prog. Ref Number	Eval Crit	Eval-date	Evaluator
HIST.RES.	DOE-50-86-0001-0000	2S2 AC	10/19/86	HANS KREUTZBERG
PROJ.REVW.	FHWA860919Z	2S2 AC	10/19/86	HANS KREUTZBERG


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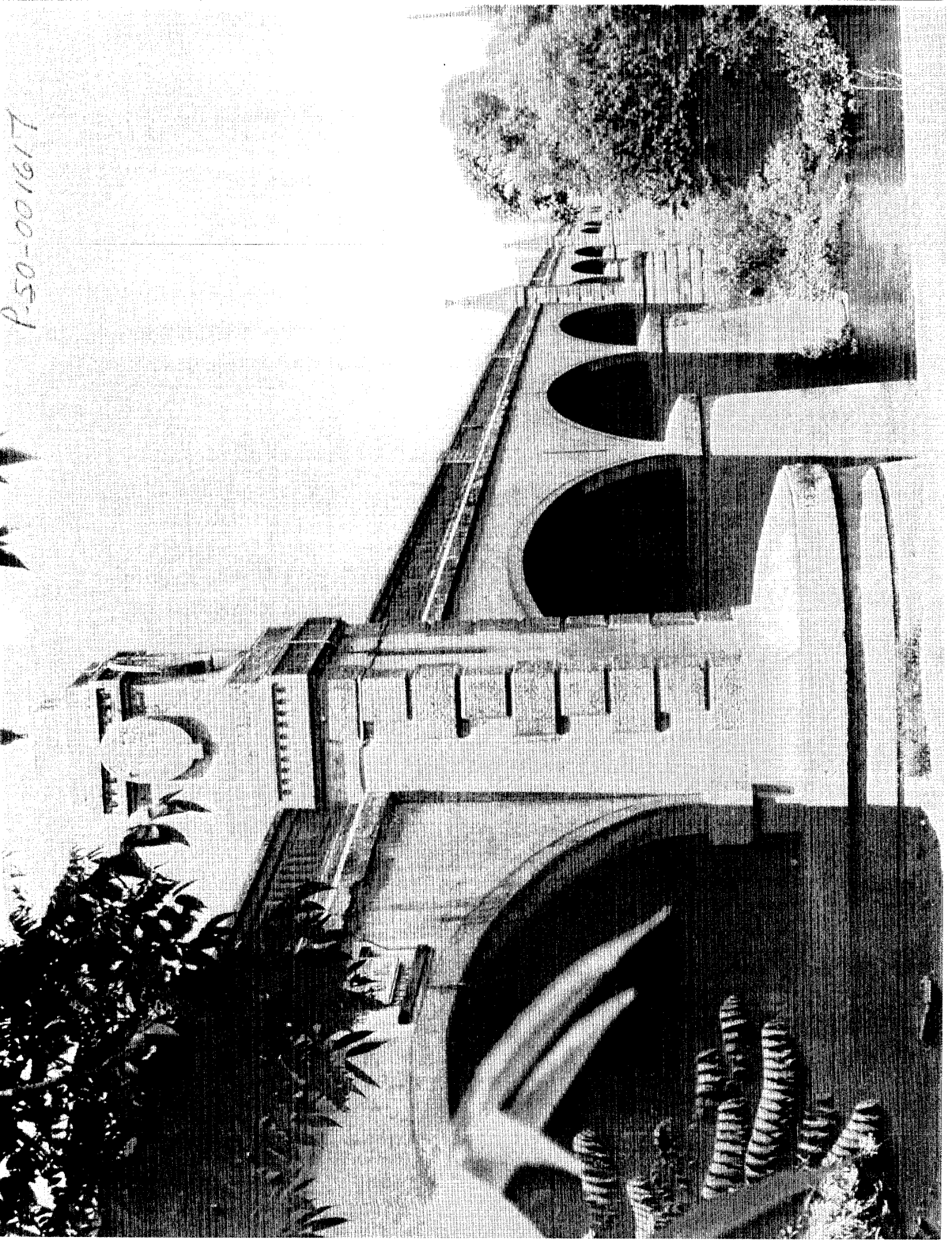
# February

# 2001

The Seventh Street Bridge (Lion Bridge) over the Tuolumne River in Modesto opened to traffic in 1917. Designed by famed architect John B. Leonard, it is one of only four Canticrete (concrete with internal steel trusses) structures still in California. The first vehicle across the bridge was a Studebaker carrying the Board of Supervisors. County Surveyor E.A. Annear supervised the project. In 1973, his daughter, Ellen Crippen, recalled some farmers in the area wanted cows instead of lions on the bridge approaches. *Photos by Ken Williams*

Sun	Mon.	Tues	Wed	Thurs	Fri	Sat
January 2001 S M T W Th F S 1 2 3 4 5 6 7 8 9 10 11 12 13	March 2001 S M T W Th F S 1 5 6 7 8 9		1	2	3	Groundhog Day Special Events Central West Ball...

P-50-001617



P-50-000617

# 114971  
DOE-50-86-0001-0000

CANTICRETE BRIDGE RATING SHEET

252

Bridge #:38C-23  
County: Stanislaus  
District: 10  
Feature Intersected: Tuolumne River  
Road: Seventh Street  
Route: Postmile:  
Routesuf:  
Quad: Riverbank (7.5)  
UTM Zone: 10 E: 677230 N: 4166086  
Lat: 37 37 30 N Long: 120 59 30 W  
Ownership:County  
City/Vicinity: in the city/town limits of Modesto  
Date: 1916

Riverbank  
7.5'

RESEARCH STATUS

Invest Int: SDM  
Entry Int: SDM  
Done: yes  
Update: 5/01/86  
Rundate: 08/18/86  
Assign Rate: 3

Designer: Leonard & Day

This is a major example of a significant designer

Contractor: C.E. Cotton & Co.

Description: MAINSPAN: rein. conc.,  
101 feet long  
BRIDGE: A 35.8 feet wide, 14 spans, 1170 feet long,  
2 lane bridge  
additional spans length: 100; 100;84;84 feet,  
and with a flush walkway

Technical Merit: excellent

Special Features

Lanterns: electroliers; fair condition

Railings: arched window rail

Pylons: yes

Decorative Fascia: none

Distinctive Texture: smooth

Pedestrian Amenities: seating

Transportation/Historical Association: local

Aesthetics:

Site: excellent

Structural: excellent

Integrity:

Location/Setting: excellent

Design/Material: excellent

Feeling/Association: excellent

Plans/Specifications: plans on microfiche at CalTrans

Comments:

The Seventh Street Bridge is significant under Criteria A and C. It was designed through the collaborative efforts of the engineering firm, Leonard & Day, and architect, Fay Spangler. It is by far the largest extant example of John B. Leonard's "Cantcrete" bridge design. This bridge form, Leonard's invention, involves a cantilevered steel truss encased in concrete. Architecturally, it is the only major example in the San Joaquin Valley of the "City Beautiful" bridge, an urban bridge design of the second decade of this century, always placed at a major entrance to the city and adorned in Beaux Arts classical detail. It is almost completely unmodified.

P 50-000617

Bridge #: 380-23

Common Name: Seventh Street Bridge

UTM Zone: 10 E: 677230

N: 4166086

River: Tuolumne River

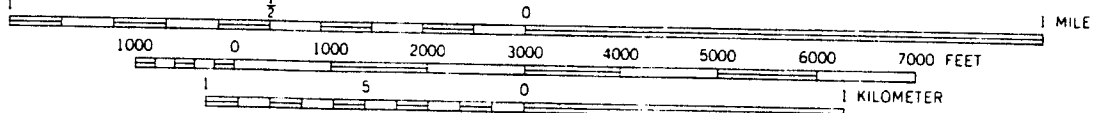
Road: Seventh Street

Vicinity: Modesto

State: California

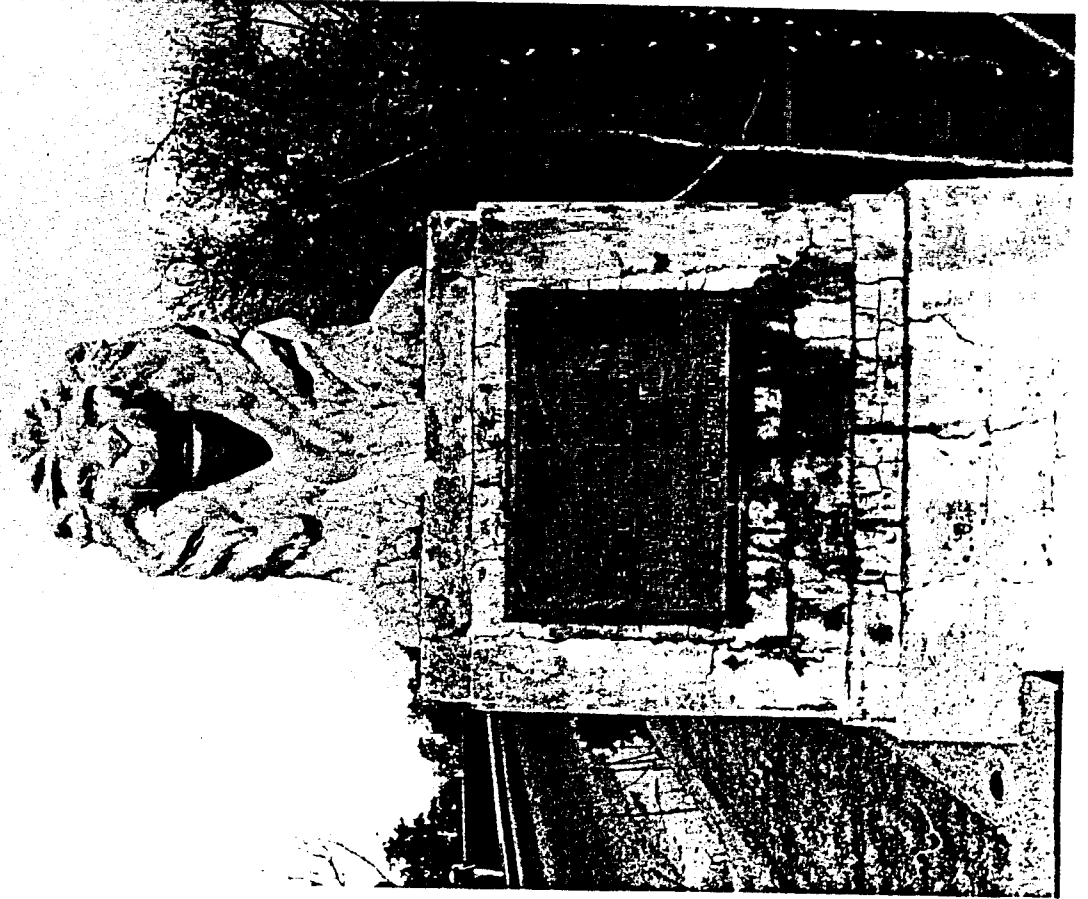


SCALE 1:24 000



CONTOUR INTERVAL 5 FEET  
NATIONAL GEODETIC VERTICAL DATUM OF 1929

P-50-000617



P50-000617

Riverbank 7.5

PROJ.REVW AND RES.PROT.UNIT

LOG-OUT PRINTOUT

HANS KREUTZBERG

Undertaking Identifier: FHWA860919Z

04/02/98 Page: 38

Undertaking Name: THEME DOE FOR CA CONCRETE SPAN BRIDGES

Property number: 114971

BRIDGE #38C-23 / 7TH STREET BRIDGE

Address:

7TH ST

MODESTO

95354

County: STA

X-Street: TUOLOMNE RIVER

Vicinity:

Parcel #:

Category:

S

# of Props:

Owner Type:

C

Pres. Use: P

Other Recognition:

CHL #:

Dates of Construction: 1916 -

Architect: LEONARD & DAY

Builder:

Historic Attributes: 19,95

Eth:

Previous Determinations on this property:

Program	Prog. Ref Number	Eval	Crit	Eval-date	Evaluator
HIST.RES.	DOE-50-86-0001-0000	2S2	AC	10/19/86	HANS KREUTZBERG
PROJ.REVW.	FHWA860919Z	2S2	AC	10/19/86	HANS KREUTZBERG

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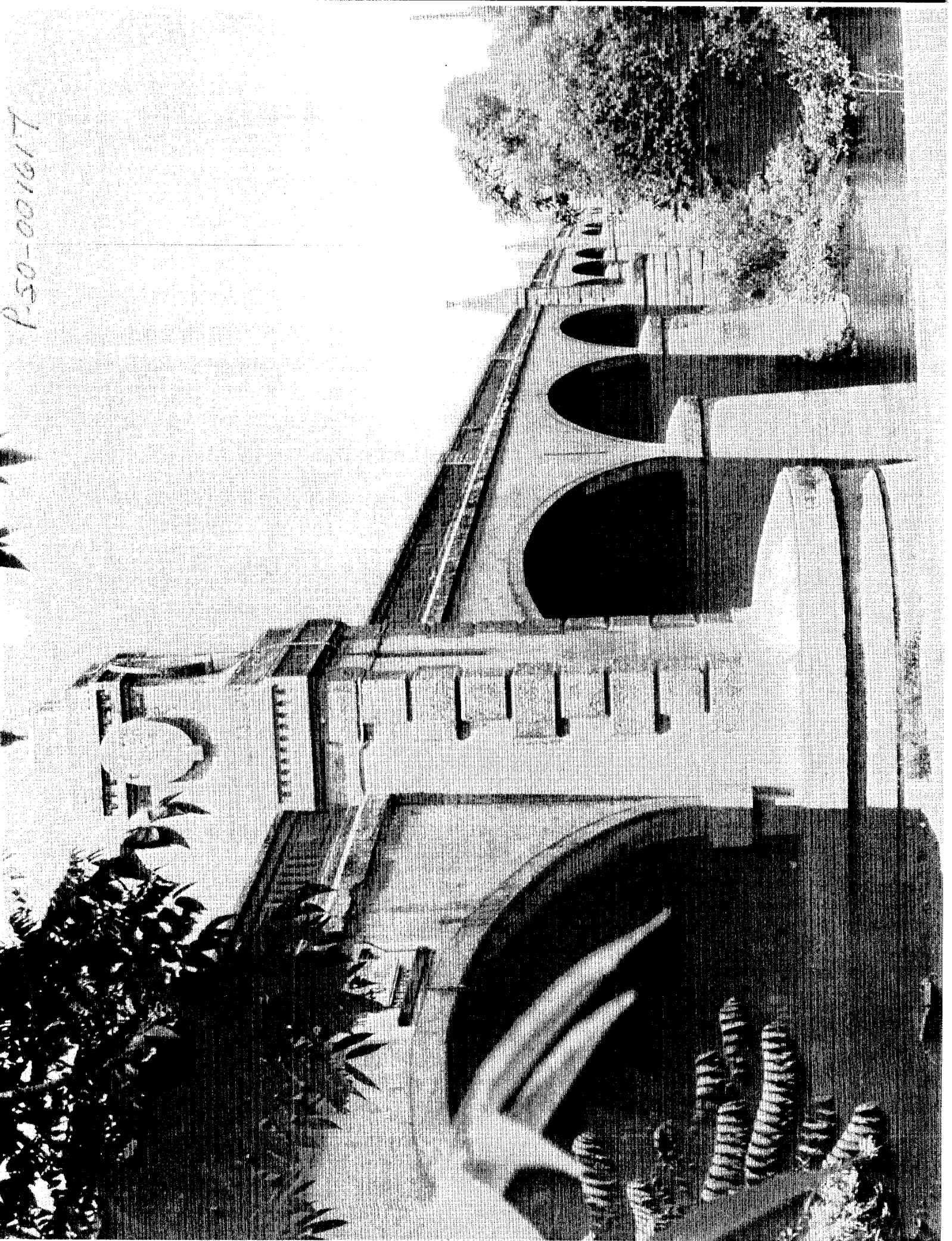
# February

# 2001

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Sun	Mon.	Tues	Wed	Thurs	Fri	Sat
January 2001 S M T W Th F S 1 2 3 4 5 6 7 8 9 10 11 12 13	March 2001 S M T W Th F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31		1	2	3	Special Events Groundhog Day

P-50-001617





(update, but first DPR form)

State of California — The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # P-50-000617  
HRI #  
Trinomial  
NRHP Status Code

Other Listings  
Review code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_

Page 1 of 4 Resource Name or #: (Assigned by recorder): Seventh Street Bridge

P1. Other Identifier: Lion Bridge

P2. Location:  Not for Publication  Unrestricted a. County Stanislaus  
and (P2b and P2c or P2d. Attach a Location Map as necessary.) Sec of SW 1/4 (and) SE of SE 1/4 S. 32

Riverbank  
7.5'

b. USGS 7.5' Quad 7.5 Date 1969 Photorevised 1987 T 3S; R 9E; Section 33; Mt. Diablo B.M.

c. Address 7<sup>th</sup> Street overcrossing of the Tuolumne River City Modesto Zip 95353 4166390 mN } northern end

d. UTM: (Give more than one for large and/or linear resources) Zone 10, 0677066 mE/ 4164871 mN } southern end

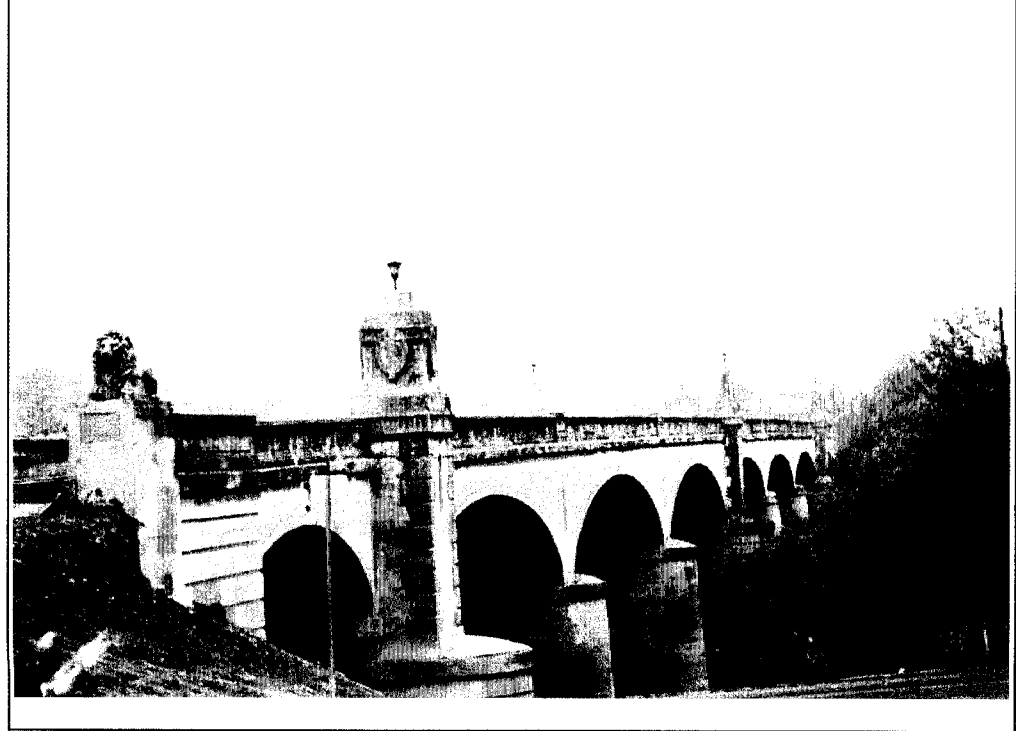
e. Other Locational Data (e.g., parcel #, legal description, directions to resource, elevation, etc., as appropriate):  
Located at the southern portal to the City of Modesto, the Seventh Street or Lion Bridge (Bridge # 38C-23) crosses over the Tuolumne River between River Road at the south end and B Street at the North end. 677100 mE, 4166000 mN

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries): Locally known as the Lion Bridge, the Seventh Street Bridge (Bridge No. 38C-023) is the only major example in the San Joaquin Valley of the "City Beautiful" bridge. Adorned in Beaux Arts Classical detail, two concrete lions stand guard at each portal. Designed through the collaborative efforts of the engineering firm of Leonard & Day and architect Fay Spangler, the Seventh Street Bridge is the most impressive extant example of "Cantcrete" bridge design. Invented by John B. Leonard, this bridge form involves a cantilevered steel truss encased in concrete. Built in 1916 by C.E. Cotton & Co., the main span is 101 feet long and 35.8 feet wide with 14 additional spans for a total of 1170 feet. As a result of DOE Process 12/24/85 (DOE-50-86-0001-0000), the Seventh Street Bridge has been determined eligible (2S2) for inclusion in the National Register of Historic Places. Significant under Criteria A and C, it is important both from the engineering perspective and from the perspective of the city planner. The Seventh Street Bridge was also designated a Modesto Landmark Preservation Site by the Modesto City Council in 1992.

P3b. Resource Attributes: (List attributes and codes) HP19 Bridge

P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  Other (Isolates, etc.)

P5. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo (view, date, accession #) Overview of Seventh Street Bridge. View southeast. November 2000.

P6. Date Constructed/Age and Sources:  Historic  Prehistoric  Both

P7. Owner and Address: City of Modesto

P8. Recorded by (Name, affiliation, and address): Leigh Martin, William Self Associates, PO Box 219

P9. Date Recorded: November 2000

P10. Survey Type: (Describe) Mixed survey

P11. Report Citation (Cite survey report and other sources, or enter "none."): Cultural Resources Assessment Report Tuolumne River Regional Park Master Plan EIR Stanislaus County, California, WSA December 2000.

Attachments:  NONE

Location Map  Sketch Map  Continuation Sheet  Building, Structure, and Object Record  Archaeological Record  District Record  Linear Resource Record  Milling Station Record  Rock Art Record  Artifact Record  Other

(photo pages)

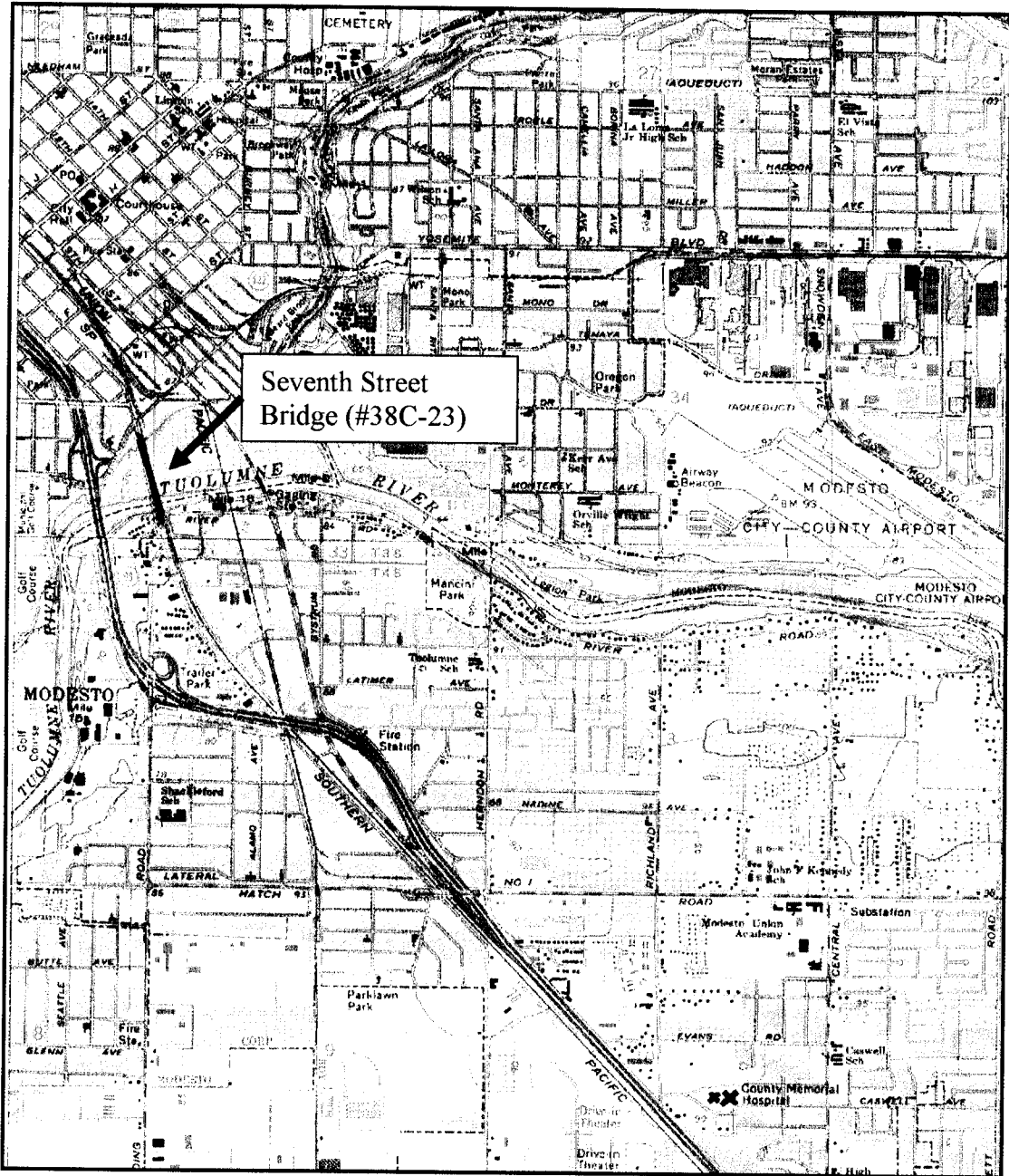
State of California — The Resources Agency  
 DEPARTMENT OF PARKS AND RECREATION  
**LOCATION MAP**

Primary # P-50-000617  
 HRI # \_\_\_\_\_  
 Trinomial \_\_\_\_\_

Page 2 of 4

\*Resource Name or # (Assigned by recorder) Seventh Street Bridge or Lion Bridge (#38C-23)

Map Name: Riverbank Quad 7.5' \*Scale: 1:24000 \*Date: 1969 Photorevised 1987



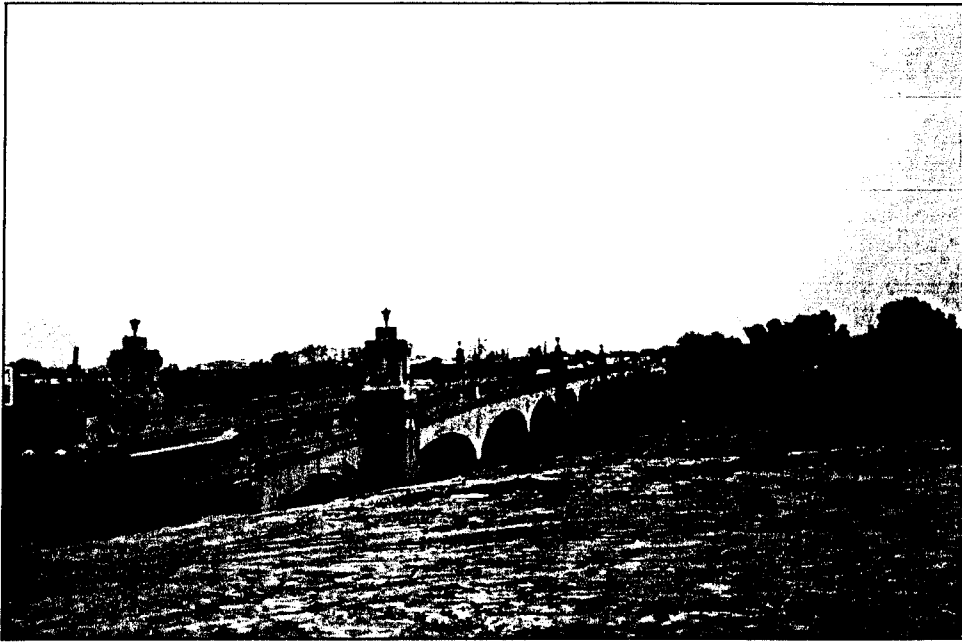


Photo 3. View southeast of Seventh Street Bridge with SPRR Bridge to left.

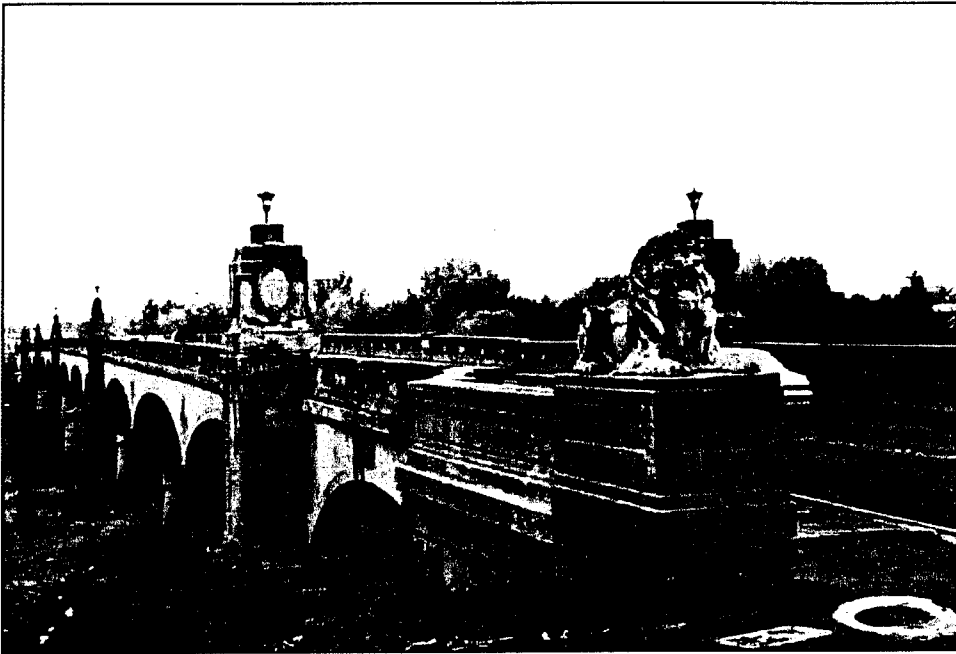


Photo 4. View southwest of the Seventh Street Bridge.

**Photos 3 and 4**

Tuolumne River Regional Park  
Gateway Parcel and Gallo/Mancini Area  
Modesto, California

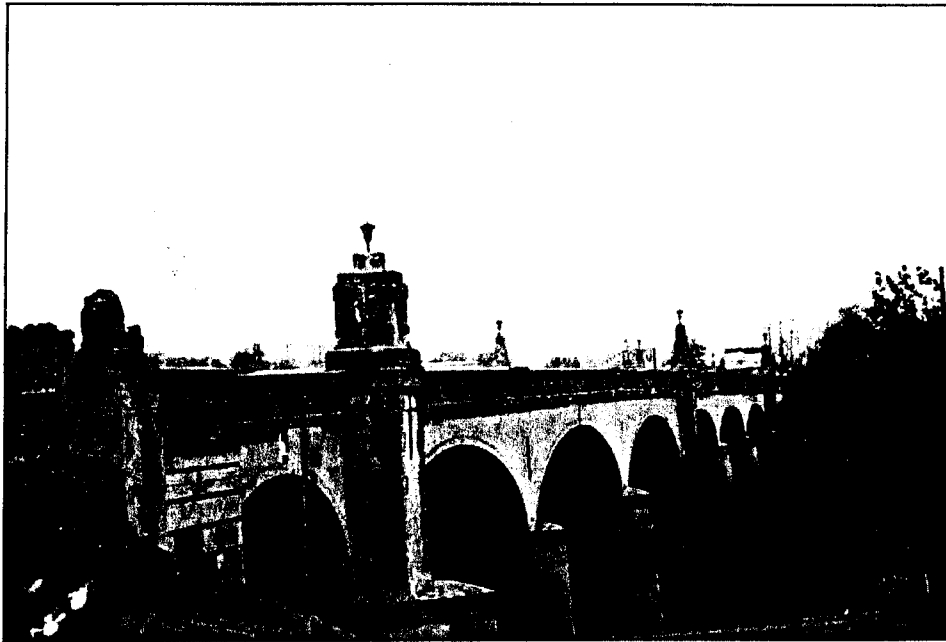


Photo 5. View looking southeast of Seventh Street Bridge.



Photo 6. View northwest of Seventh Street Bridge with SPRR Bridge to right.

**Photos 5 and 6**

Tuolumne River Regional Park  
Gateway Parcel and Gallo/ Mancini Area  
Modesto, California

P-50-000617

PROJ.REVW AND RES.PROT.UNIT

LOG-OUT PRINTOUT

HANS KREUTZBERG

Undertaking Identifier: FHWA860919Z

04/02/98 Page: 38

Undertaking Name: THEME DOE FOR CA CONCRETE SPAN BRIDGES

Property number: 114971

BRIDGE #38C-23 / 7TH STREET BRIDGE

Address:

7TH ST  
MODESTO

95354

County: STA  
X-Street: TUOLOMNE RIVER  
Vicinity:  
Parcel #:

Category: S

# of Props:

Owner Type: C

Pres. Use: P

Other Recognition:

CHL #:

Dates of Construction: 1916 -

Architect: LEONARD & DAY

Builder:

Historic Attributes: 19,95

Eth:

Previous Determinations on this property:

Program	Prog. Ref Number	Eval Crit	Eval-date	Evaluator
HIST.RES.	DOE-50-86-0001-0000	2S2 AC	10/19/86	HANS KREUTZBERG
PROJ.REVW.	FHWA860919Z	2S2 AC	10/19/86	HANS KREUTZBERG

P-50-001811

MAP REFERENCE NO. 26

Riverbank 7.5'

8/01

BRIDGE EVALUATION FORM

(NOTE: This form is only to be used for structure types listed in the Caltrans/FHWA/SHPO Memorandum of Understanding dated December 1980.)

LOCATION: (attach copy of appropriate map showing structure location)

COUNTY: Stanislaus  
ROUTE: N/A  
VICINITY: Modesto  
NAME: Tuolumne River Bridge  
BRIDGE NUMBER: N/A

DESCRIPTION:

TYPE: STANDARD

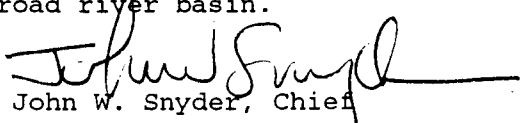
TYPE OF SUPERSTRUCTURE: Single-track timber stringer trestle with open deck. Timbers stringers are creosoted Douglas fir; 10 stringers in two lines of 5, aligned directly beneath rails.

TYPE OF SUBSTRUCTURE: Timber 6-pile bents with timber caps; backfilled timber abutments.

HISTORY/DATE OF CONSTRUCTION/DESIGNER: ca. 1914\*/Tidewater Southern Railway

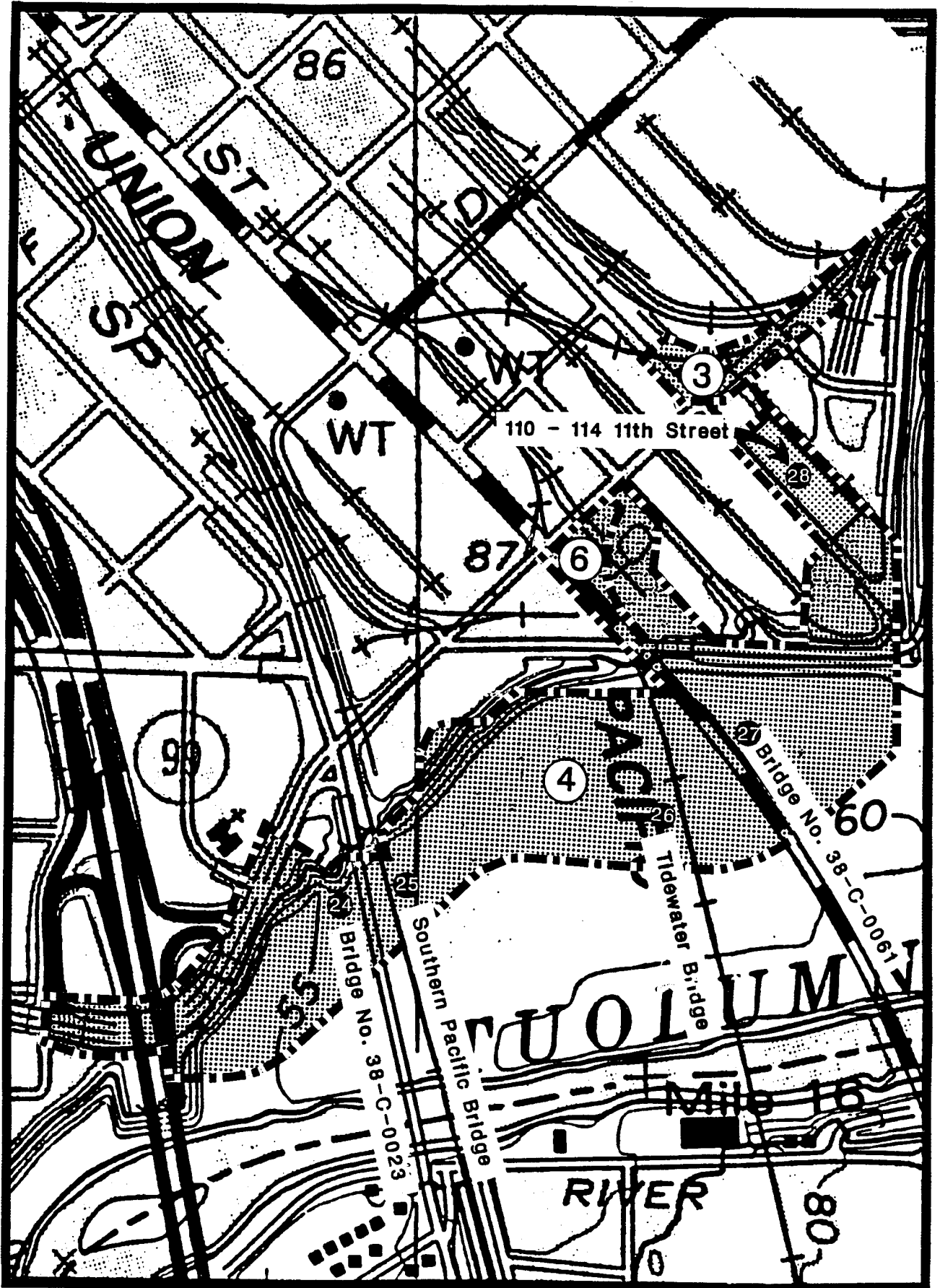
OTHER HISTORICAL INFORMATION (persons, events--e.g. WPA/CCC):

\*While original construction of this structure likely dates to ca.1914, maintenance and renewal of timber bridge structures dictates that there is likely little original material left intact. The Tidewater Southern Railway incorporated in 1912, and was acquired by the Western Pacific Railroad in 1917. While this trestle is interesting for its length, it remains nonetheless a simple engineering solution, using a standard-type design, for crossing a broad river basin.



PREPARED BY: John W. Snyder, Chief  
Architectural & Historic Studies  
Caltrans

DATE: November 7, 1991



Project Locations #3, 4 & 6 Architectural Study Area: Map ID #24 and 27

# Another piece of Modesto goes down



PHOTO BY ADRIAN MENDOZA FOR THE BEAT



ADRIAN MENDOZA FOR THE BEAT

A backhoe begins demolition Sunday of the trestle. Top: Johnny Helton points toward spot where homeless stayed.

## Historic railroad trestle plowed under after fire destroyed it Saturday

BY JOHN GORENFELD  
REBEKAH WELSH

The trestle over the Tulelake River creaked, crunched and cracked Sunday afternoon as the metal jaws of a backhoe gnawed off its burnt wooden beams.

On Saturday, fire scorched the 81-year-old railroad bridge next to the Ninth Street Bridge. About a 0.7% of the bridge's 1,035 feet gave way after the fire was out.

Crews from a contractor planned to collapse the rest of the bridge, now seen as a hazard, by today.

The bridge's death throes provided a spectacle for Modesto residents who parked nearby to watch.

Susan French of Modesto, 41, was upset she had missed Saturday's fire. "I'm loving this," she said as machines tore out trees on the embankment under the bridge.

Saturday, the oil-treated wood that made up the abandoned bridge burned so hot it took two hours to put out and produced smoke visible from the other side of town.

The end of the bridge also meant homeless people who lived beneath the former Tidewater Southern Railway trestle would have to move on.

Johnny Helton, 21, who lives farther up the river, said police told people under the bridge that they had to leave the state-owned land.

The fire department is still searching for the cause of the blaze.

The fire came as no surprise to Chris Johnson, 24. He lives in the nearby Butler's Camp trailer park and said small grass fires have become common in the area. Park residents, he said, suspected groups of about 100 have been starting fires for fun.

He said the bridge was a remnant of a disappearing era. The bridge was built in 1917 and hasn't been used for more than a year.

"It's another piece of Modesto," he said. "It goes down, and a piece of Modesto goes down."

See staff writer John Gorenfeld can be reached at 578-2347 or jgorenfeld@modbeat.com.



# LANGUAGE OF FLAMES

## WORK & MONEY

### Home sales not as brisk

Buyers are taking a little time before deciding on the right house to purchase, says one real estate agent. The market is still strong in the area, but not as brisk as a few months ago when home sales were selling in a matter of days. Today, the average waiting time for a home is 12 to 14 days, says a real estate agent.

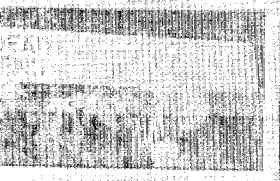
## TRAVEL

### Old route still has its kicks

They called it the "Route of Emigrants" because of the many people who traveled there at one time. Now, it's a scenic route for tourists. The route is still popular, and many people are taking it to see the sights and enjoy the scenery.



## LOCAL NEWS



### Street tainted by drugs

Residents in the area are remembering when it used to be a quiet street. Now, it's a hot spot for drug activity. The street is now a place where people are selling drugs, and it's causing a lot of trouble for the community.

## WASHINGTON

### Facing test in Europe

The test is a challenge for the United States. It's a test of our ability to handle international relations. The test is a challenge for our leadership and our ability to work with other countries.

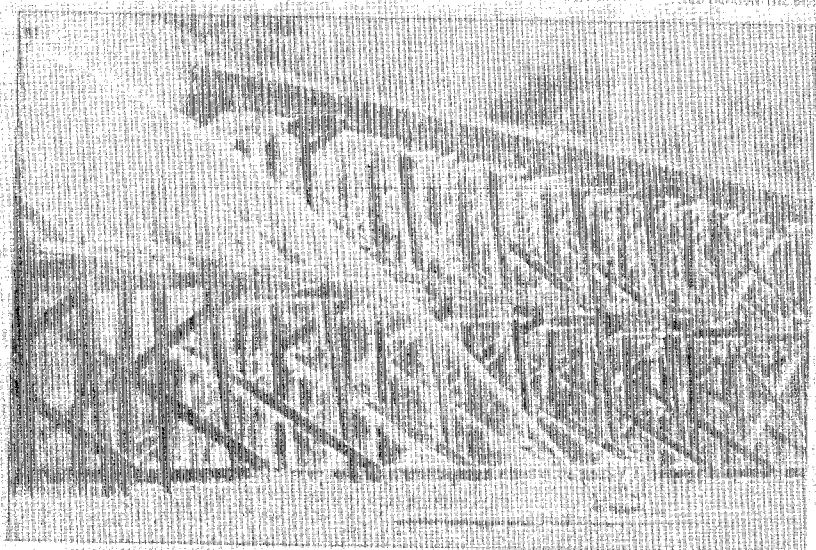


## COMING MONDAY

There are many things to look forward to on Monday. There are new stories, new photos, and new information. It's a day of excitement and discovery.

## Index

Page 1	Page 2	Page 3	Page 4
Page 5	Page 6	Page 7	Page 8



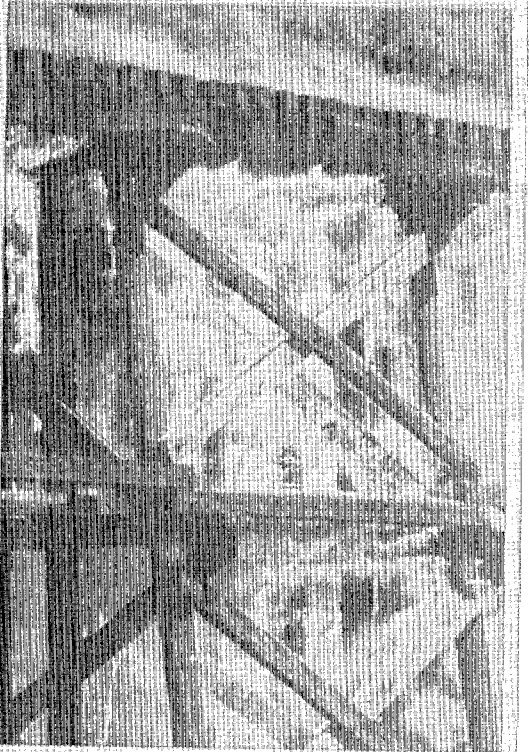
The former Tidewater Southern Railway trestle spanned the Tachamie River for more than 25 years, but fell to a two-hour blaze Saturday. At top, the main deck collapses at 4:03 p.m. Above, a Modesto firefighter douses flames.

# Abandoned train trestle blaze gives firefighters a workout

Law enforcement officials busy, too, with spectators

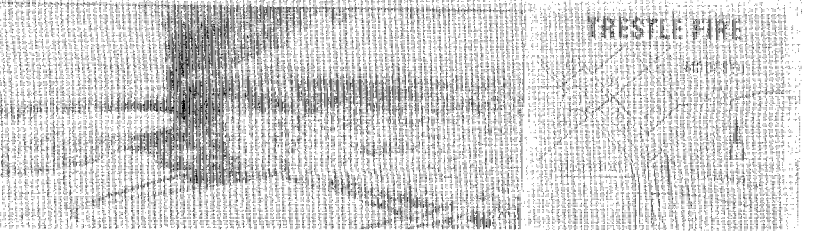
By DAVID J. ...

A three-alarm fire at a small bridge over the Tachamie River in Modesto, Calif., on Saturday night resulted in the collapse of the main deck of the trestle. The fire started in the middle of the trestle and spread rapidly. Firefighters from Modesto and other areas arrived to fight the blaze. The fire was extinguished at 4:03 p.m. The trestle collapsed into the river below.



The fire was particularly difficult to fight because the trestle was in the middle of a wooded area. The fire was caused by an electrical short circuit. The trestle was built in 1930 and was in poor condition. The fire was a major disaster for the community.

Above, the untreated lumber of the open deck burns like an inferno. Below, a pilot took this photo shortly after taking off from Modesto Airport.

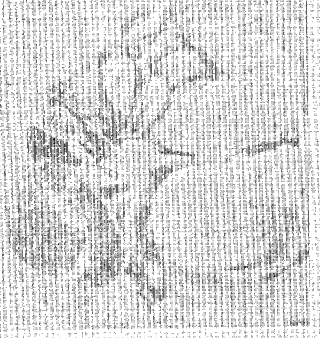


## TRESTLE FIRE

# FIRE: Several observers nearly hit by Union Pacific train

By [Name]

Several observers were nearly hit by a Union Pacific train on Monday night as it passed through the city of [Location]. The train, which was carrying a large load of [Cargo], was moving at a high speed when it approached the observers. The observers, who were standing on the sidewalk, were in a state of panic as they watched the train pass by. The train's headlights were shining brightly, and the sound of the wheels on the tracks was deafening. The observers were lucky to escape unharmed, but the incident was a close call.



The incident occurred on Monday night, around 10:30 p.m. The train was traveling from [Location] to [Location]. The observers, who were standing on the sidewalk, were in a state of panic as they watched the train pass by. The train's headlights were shining brightly, and the sound of the wheels on the tracks was deafening. The observers were lucky to escape unharmed, but the incident was a close call.

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**AMERICAN AIRWAYS**

FLY TO THE WORLD'S MOST INTERESTING PLACES

AMERICAN AIRWAYS

FLY TO THE WORLD'S MOST INTERESTING PLACES

**PRIMARY RECORD**

Primary #: P-50-001999  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code: \_\_\_\_\_  
Other Listings \_\_\_\_\_  
Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_

Page 1 of 3

\*Resource Name or #: City of Modesto Elevated Water Tower and Tank

9/08

P1. Other Identifier:

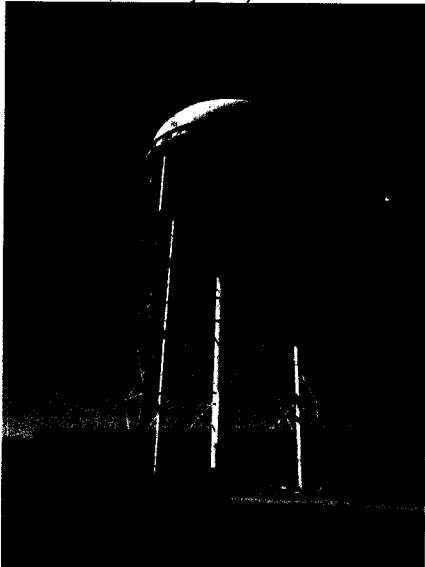
\*P2. Location:  Not for Publication  Unrestricted      \*a. County: Stanislaus  
b. Address: Near intersection of 10<sup>th</sup> and D Streets      City: Modesto      Zip: 95354  
\*c. USGS Quad: Riverbank, CA 7.5'      Date: 1954  
d. UTM:  
\*e. Other Locational Data: The water tower is situated southeast of D Street and southwest of 10<sup>th</sup> Street, APN 106-046-001.

\*P3a. Description: The approximate 130' high elevated water tank and tower is a standard ellipsoidal steel six legged tower with an approximate 100,000 gallon capacity tank. The tower, supported by concrete piers and a concrete pad, is located on a compacted dirt surface adjacent to a circa 1930s industrial building (north side). Character defining features of the water tower and tank include the tower's steel legs, x-bracing, a central pipe between the ground level and the base of the tank, and a narrow catwalk that encircles the tank. The elevated water tank and tower were probably constructed either by the Pittsburgh Tank and Tower Company of Iowa or the Chicago Bridge & Iron Works Company. Both companies were leaders in the industry and built thousands of elevated water towers and tanks all across the United States. The water tower and tank have good integrity of design, workmanship, materials, and association, although the immediate setting beneath the tower has changed with the construction of telecommunications equipment.

\*P3b. Resource Attributes: HP-11 Engineering Structure (Elevated Water Tower and Tank)

\*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District

P5. Photograph or Drawing  
(Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: Looking northwest at the water tower and tank.

\*P6. Date Constructed/Age and Sources:  Historic circa 1950.

\*P7. Owner and Address: City of Modesto, 801 11<sup>th</sup> Street, Modesto, CA 95353

\*P8. Recorded by: Dana E. Supernowicz, Architectural Historian, Historic Resource Associates, 2001 Sheffield Drive, El Dorado Hills, CA 95762

\*P9. Date Recorded: August 2008

\*P10. Type of Survey:  Architectural

Describe: Architectural Recordation and Evaluation per Section 106 of NHPA.

\*P11. Report Citation: Cultural Resources Study of the Downtown Modesto Project, AT&T Mobility Site No. CA-9799, Intersection of 10<sup>th</sup> & D Streets, Modesto, Stanislaus County, California 95354. Prepared for Earthtouch, Inc., 3135 North Fairfield Road, Layton, Utah 84041. Prepared by Historic Resource Associates, 2001 Sheffield Drive, El Dorado Hills, CA 95762. August 2008.

\*Attachments: Building, Structure, and Object Record; Photograph Record; Project Location Map

**BUILDING, STRUCTURE, AND OBJECT RECORD**

Primary #: P50-001999  
HRI#:

Page 2 of 3

\*Resource Name or #: City of Modesto Elevated Water Tower and Tank

\*NRHP Status Code: 6Y2

- B1. **Historic Name:** Undetermined  
B2. **Common Name:** Undetermined  
B3. **Original Use:** Water storage and delivery  
B4. **Present Use:** Same  
\*B5. **Architectural Style:** Industrial elevated water tower and tank  
\*B6. **Construction History:** Based upon historic maps, the elevated water tower and tank were built in circa 1950. The elevated water tank was constructed as a source of water storage for the City of Modesto.  
\*B7. **Moved?**  No  Yes  Unknown **Date:** N/A **Original Location:**  
\*B8. **Related Features:** Industrial buildings and warehouses that date from the 1930s through the 1970s.  
B9a. **Architect:** Possibly the Pittsburg-Des Moines Tank & Tower Company, Des Moines, Iowa or the Chicago Bridge & Iron Company.  
B9b. **Builder:** Possibly the Pittsburg-Des Moines Tank & Tower Company, Des Moines, Iowa or the Chicago Bridge & Iron Company.  
\*B10. **Significance: Theme:** Engineering/Elevated tower and tank construction/Manufacturing **Area:** Modesto/Stanislaus County  
**Period of Significance:** circa 1950 **Property Type:** Industrial Water Storage Structure **Applicable Criteria:** A and C

With the expansion of the railroad through the great Central Valley of California, Modesto began its existence with populations from smaller towns along the Tuolumne River - Paradise and Tuolumne City. Their populations and buildings moved entirely to the new village laid out by the Central Pacific Railroad. It was intended to name the station for William C. Ralston, one of the railroad's directors, but he modestly declined and the name was changed to the Spanish adjective meaning "modest" (Gudde 1969:205). The dusty village soon became the center of Stanislaus County, dethroning Knight's Ferry by becoming the county's sixth seat of government since 1854.

In 1870, when it became generally known where the new town of Modesto was to be located, there was a tremendous influx of businesses, dwellings, and people rapidly moving to the one-mile square railroad town. Modesto became the end of the railroad line on November 8, 1870, and it took another two years to construct the tracks as far as Merced. When newcomers got off the train here they saw a community of approximately 25 hastily constructed buildings. By 1910, the population of Modesto was estimated at 4,034 and ten years later it had doubled to 9,241. Modesto soon became known as the "Rose City" and the "Garden City" because of its many rose bushes and well-manicured lawns. From 1920 to 1930 Modesto achieved the greatest growth of any city in Northern California or 49% to 13,842. Then in 1940, the population again increased to 16,830 (Historic Modesto Website 2008) Refer to BSO, Page 3 of 3.

- B11. **Additional Resource Attributes:** N/A  
B12. **References:** Pittsburgh Tank & Tower Company, Inc. Website. [www.watertank.com](http://www.watertank.com). Accessed 2003; Chicago Bridge & Iron Works. *Elevated Tank Designs: Submitted in a Competition Sponsored by Chicago Bridge & Iron Works*. 1931; Gudde, Edwin G. *California Place Names: The Origin and Etymology of Current Geographical Names*. Berkeley: University of California Press, 1969; Historic Modesto Website. "About Historic Modesto." [www.historicmodesto.com](http://www.historicmodesto.com). Accessed August 2008; Straus, Rachael; "The Chicago Bridge and Iron Works During the Great Depression." [www.lib.niu.edu/ipo/ihy930574.html](http://www.lib.niu.edu/ipo/ihy930574.html). Accessed 2005; Hohenthal et al. *Streams in a Thirsty Land: A History of the Turlock Region*. Turlock: City of Turlock. 1972.  
B13. **Remarks:** None  
B14. **Evaluator:** Dana E. Supernowicz, Architectural Historian, Historic Resource Associates, 2001 Sheffield Drive, El Dorado Hills, CA 95762  
**Date of Evaluation:** August 2008.

(This space reserved for official comments.)

AERIAL PHOTOGRAPH 2002



**BUILDING, STRUCTURE, AND OBJECT RECORD**

Primary #: P50-001999  
HRI#:

Page 3 of 3

\*Resource Name or #: City of Modesto Elevated Water Tower and Tank

\*NRHP Status Code: 6Y2

**\*B10. Significance: (Continued):**

The story of the Modesto Irrigation District began with the creation of a California irrigation district law. In 1886, a young Modesto attorney, C.C. Wright, ran for the state legislature in 1886 on one issue - to get a California irrigation district law passed. He was elected, arrived in Sacramento in January 1887 and by March 7th, the law was passed and signed by the governor. Then it was up to the local voters to organize a district under the new law. On July 9, 1887, voters in the Modesto area approved the formation of California's second irrigation district under the new law and elected a five-member board of directors. The Stanislaus County Board of Supervisors declared the Modesto Irrigation District (MID) organized on July 18. Directors held the first meeting on July 23 and went to work to select a source of water for the newly organized district (Hohenthal et al. 1972).

In 1893, directors decided to use water from the Tuolumne River and the Modesto and Turlock irrigation districts built La Grange Dam, a diversion dam, on the Tuolumne River. MID continues to divert water to the north of the river and Turlock Irrigation District (TID) to the south. Don Pedro Reservoir is the District's primary water storage facility, while Modesto Reservoir is a small holding reservoir. Modesto and Turlock irrigation districts constructed the original Don Pedro Reservoir in 1923. It was replaced by the completion of the New Don Pedro Reservoir and Dam in 1971. New Don Pedro is the sixth largest freshwater multi-use reservoir in California. The District's 208 miles of canals operate on a gravity flow system. Canals were completed in 1903 and the first official MID irrigation season opened in 1904 (Hohenthal et al. 1972).

The location of the elevated water tower and tank consists of an approximate ½-acre parcel of land zoned for general industrial use, which contains an elevated water tank owned by the City of Modesto. The surface of the property is covered with a combination of packed dirt and gravel including existing electrical cabinets and other telecommunications equipment. The steel elevated water tower and tank features a design that can still be found throughout the United States, used by private companies and municipalities for water storage. Between the 1920s and the 1970s there had been a number of important technological improvements that had been made to the design of elevated water towers, although the basic principals of engineering and function remain unchanged.

The 1900s-1920s water tower designs were constructed largely of wood, with lattice bracing and a large catwalk around the tank, which featured a conical cap. The second episode of tower construction, circa 1910s-1920s, featured steel four legged, riveted, lattice-braced towers with a distinctive cone shaped steel tank and conical hood. The third class of elevated towers included torospherical or ellipsoidal steel, five or six legged designs with spherical tanks and narrow catwalks. These towers were generally built in the late 1940s or 1950s for municipal or military use, as was the case with the Modesto elevated water tower and tank (Pittsburgh Tank & Tower Company, Inc. Website 2005; Chicago Bridge and Iron Works 1931).

The candidate structure, owned and operated by the City of Modesto, is a circa 1950s ellipsoidal elevated steel water tower and tank, commonly used by municipalities, the military, and private industry. The approximate 130' tower and tank retain good integrity, but the structure itself is very common and can be found in numerous Central Valley communities, including nearby Stockton. Near the tower is a circa 1930s industrial warehouse, but further beyond the elevated water tower are industrial buildings and structures that date from the 1950s through the 1970s. While the property is owned and operated by the City of Modesto, and is part of the city's water storage and distribution network, it is a relatively modern facility as compared to the communities historic water storage system that once included wood-frame elevated water towers and tanks and conical circa 1920s steel water towers.

Therefore, the property does not appear to be individually eligible for the National Register of Historic Places (NRHP) under Criterion A for its association with a significant event in the history of Modesto, or under NRHP Criterion C for its engineering design. The property does not appear to be part of a NRHP historic district, characterized by industrial buildings and structures adjoining D Street.

P50-001999

121°00'00" W

WGS84 120°59'00" W

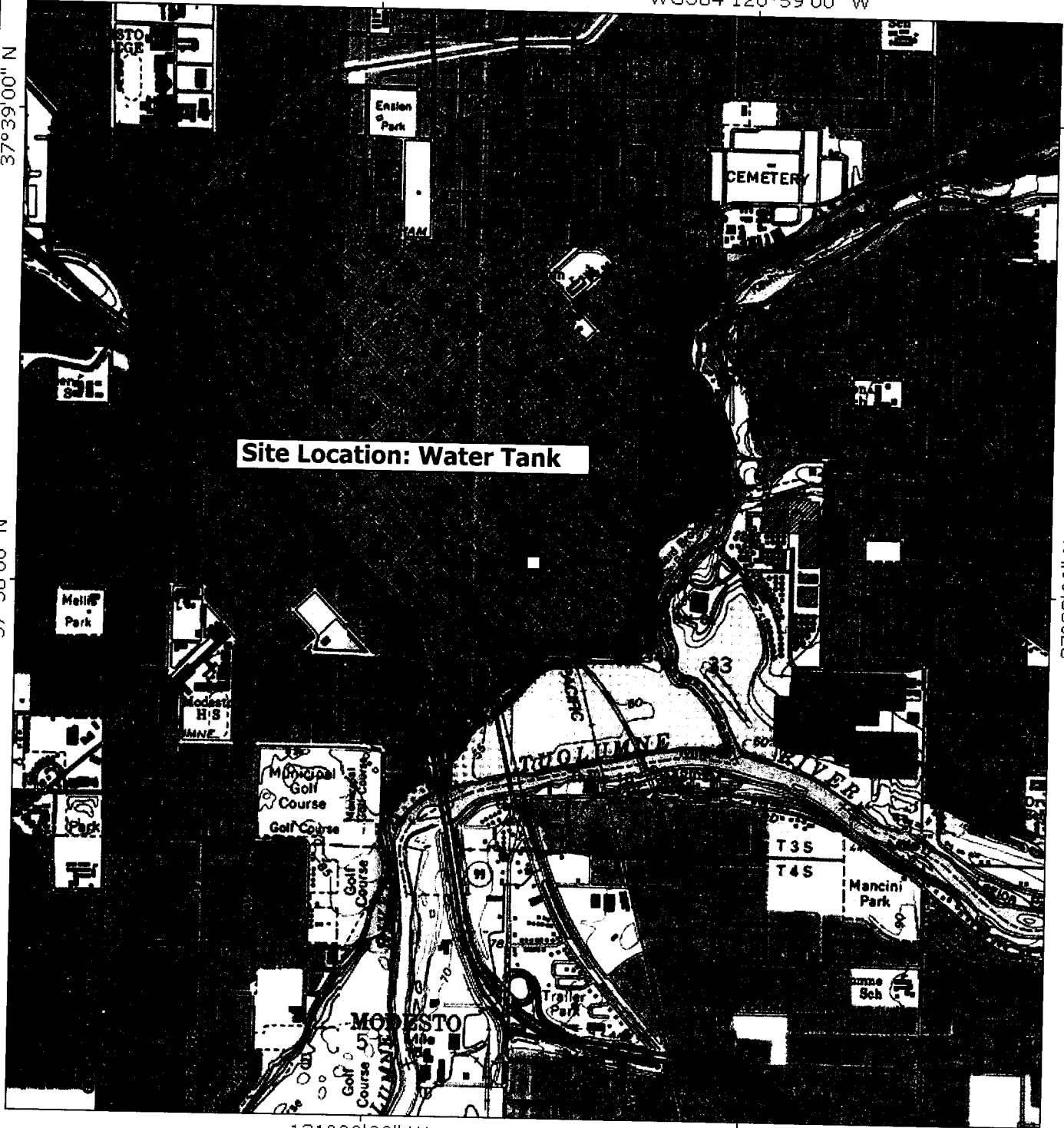
37°39'00" N

37°39'00" N

37°38'00" N

37°38'00" N

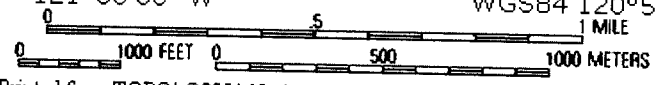
Site Location: Water Tank



121°00'00" W

WGS84 120°59'00" W

TN \* MN  
14 1/2°



Printed from TOPO! ©2001 National Geographic Holdings (www.topo.com)



**Topographic Map  
(Site Location)**

Figure: TOPO/APE Map  
Append: FCC Form 621

**EarthTouch, Inc.**  
3135 North Fairfield Road  
Layton, Utah 84041  
Tel: 801.771.2800  
Fax: 801.771.2838

**DT Modesto Water Tower and Tank**  
10th & D Street  
Modesto (Stanislaus County), CA 95354  
T3S R9E Section 33

Project: CA-9799-ATT / DT Modesto  
Source: USGS 7.5-minute quadrangle  
Riverbank, CA

State of California - The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # F50-002018

HRI# \_\_\_\_\_

Trinomial \_\_\_\_\_

Other Listings: \_\_\_\_\_

Review Code: \_\_\_\_\_

Reviewer: \_\_\_\_\_

Date: \_\_\_\_\_

Page 1 of 6

Resource Name or #: (assigned by recorder) Modesto Pump Station Number 5

12/09

P1. Other Identifier:

P2. Location: Not for Publication  Unrestricted

(P2b and P2c or P2d. Attach a Location Map as necessary)

a. County Stanislaus

b. USGS 7.5' Quad: Salida Date: 1969 (1987) T. 3S; R. 9E; SE 1/4 of NW 1/4 of Sec. 32; MDBM

c. Address: 629 2<sup>nd</sup> Street

City: Modesto

Zip: 95351-3351

d. UTM: (Give more than one for large and/or linear resources)

Zone: 10; mE/; mN

e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate) The former fire station is located at 629 2<sup>nd</sup> Street, located north of Sierra Drive, and south of G Street in the southwestern portion of the City of Modesto..

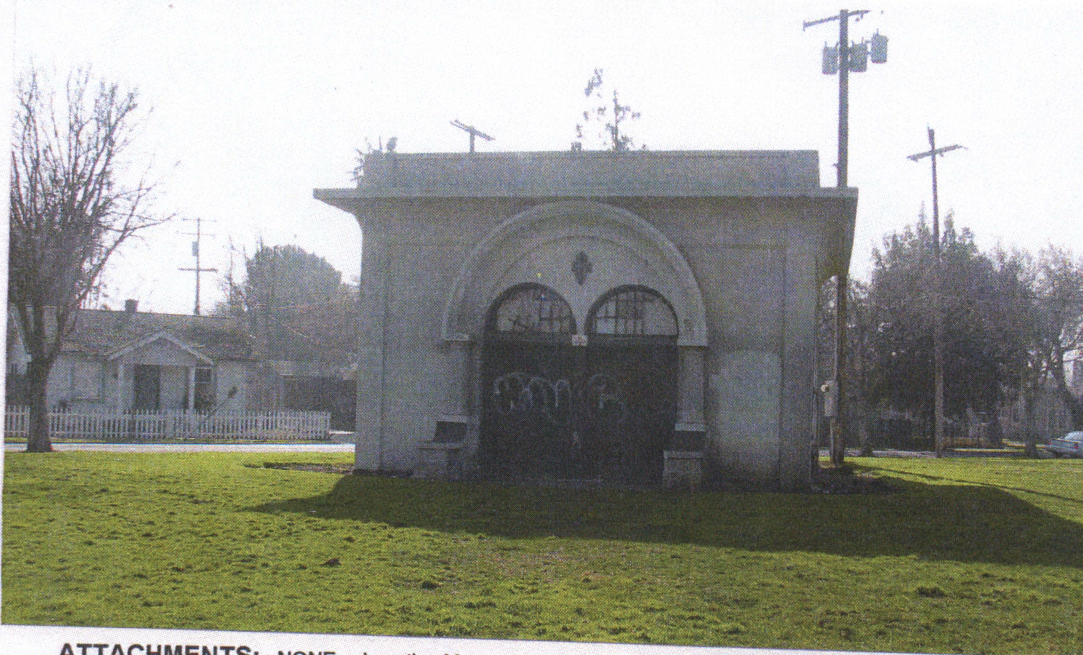
**P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries). The pump station structure is single story, rectangular-shaped with a flat roof and parapet with an undecorated entablature, made of concrete. The walls are enclosed with square columns and beam. Two facades have paired, double sash windows divided horizontally. They are enclosed with a lintel with decorative panel, plain trim and plain lugsill. A third facade has a single window with the same treatment. The south-facing facade has an arched porch supported by columns and double, double doors with a fanlight transom window with panels. The doors are metal. There is a decorative panel below the crest of the arch.

Stylistically, the structure has elements of the Beaux Arts Style, popular between 1885 and 1930. It would fall under the more common flat roof subtype that was modeled after Italian Renaissance homes. The symmetrical facade and entry porch roof supported with classical columns are typical Beaux Arts features (McAlester and McAlester 1996:379-380). Overall, decorative elements are limited to the window lintels and one panel underneath the crest of the arch.

**P3b. Resource Attributes:** (List attributes and codes) HP - 9 - Public Utility Building

**P4. Resources Present:** Building  Structure  Object  Site  District  Element of a District  Other (Isolates etc.)

**P5a. Photo or Drawing** (Photo required for buildings, structures, and objects)



**P5b. Description of**

**Photo:** (View, date, accession #) View looking southwest from 2<sup>nd</sup> Street. 2-4-09

**P6. Date Construction**

**Age and Sources:** 1919-22

Historic  Prehistoric  Both

**P7. Owner and Address:**

City of Modesto

**P8. Recorded By:** (Name, affiliation, and address) Kenneth

Horrillo, City of Modesto

Recreation and Neighborhood

Services Division

P.O. Box 642

Modesto, California 95363

**P9. Date Recorded:** 2/4/09

**P10. Survey Type:**

(Describe) N/A; Building evaluation

**P11. Report Citation:** (Cite

Survey report and other resources,

or enter "none") An Evaluation of

Fold Pump Station Number 5, City

of Modesto, California. Peak &

Associates, Inc. 2009

**ATTACHMENTS:** NONE  Location Map  Sketch Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Feature Record  Milling Station Record  Rock Art Record  
 Artifact Record  Photograph Record  Other: \_\_\_\_\_

State of California - The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: P-50-002018  
HRI #: \_\_\_\_\_

Page 2 of 6 \*NRHP Status Code: 6Z

B1. Historic Name: Modesto Pump Station Number 5  
B2. Common Name: Same  
B3. Original Use: To enclose a water pump B4. Present Use: Same, pump not used since 1982  
B5. Architectural Style: Beaux Arts  
B6. Construction History: (Construction date, alterations, and date of alterations.). The pump station was built during sometime between 1919 and 1922.

B7. Moved?  No  Yes  Unknown Date: \_\_\_\_\_ Original Location: \_\_\_\_\_  
B8. Related Features: None

B9a. Architect: Unknown b. Builder: Unknown  
B10. Significance: Theme N/A Area N/A  
Period of Significance N/A Property Type N/A Applicable Criteria N/A  
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The pump station is not associated with events important in our past or that have made a significant contribution to the broad patterns of California's history and cultural heritage [CRHR Criterion (B) 1]. It is simply a former part of the water supply system of the City of Modesto, and is representative of a period when the growth in population brought about a need for more service.

There is no single person of prominence that can be cited relative to the development and expansion of the water supply system of the City of Modesto. There are no other personalities associated with the building complex, so it can be concluded the building is not eligible under CRHR Criterion (B) 2 for an association with the lives of persons important in our past.

Modesto Pump Station No. 5 had a limited number of design elements added to an otherwise utilitarian design. It is somewhat unique, but does not exemplify or embody any outstanding architectural characteristics of a particular style or method of construction. Similarly, it does not represent the work of an important creative individual, or possesses high artistic values [CRHR Criterion (B) 3].

As a result, it can be concluded that the structure is not eligible for the California Register of Historical Resources.

B11. Additional Resource Attributes: (List attributes and codes)

(Sketch map with north arrow required)

B12. References: Sanborn Fire Insurance Map 1919

See page 5/6 for sketch map

B13. Remarks:

B14. Evaluator: Melinda Peak

Date of Evaluation: 10/26/09

This space reserved for official comments.



P-50-00298



A) View from 2<sup>nd</sup> Street of the north facing facade, looking southwest.

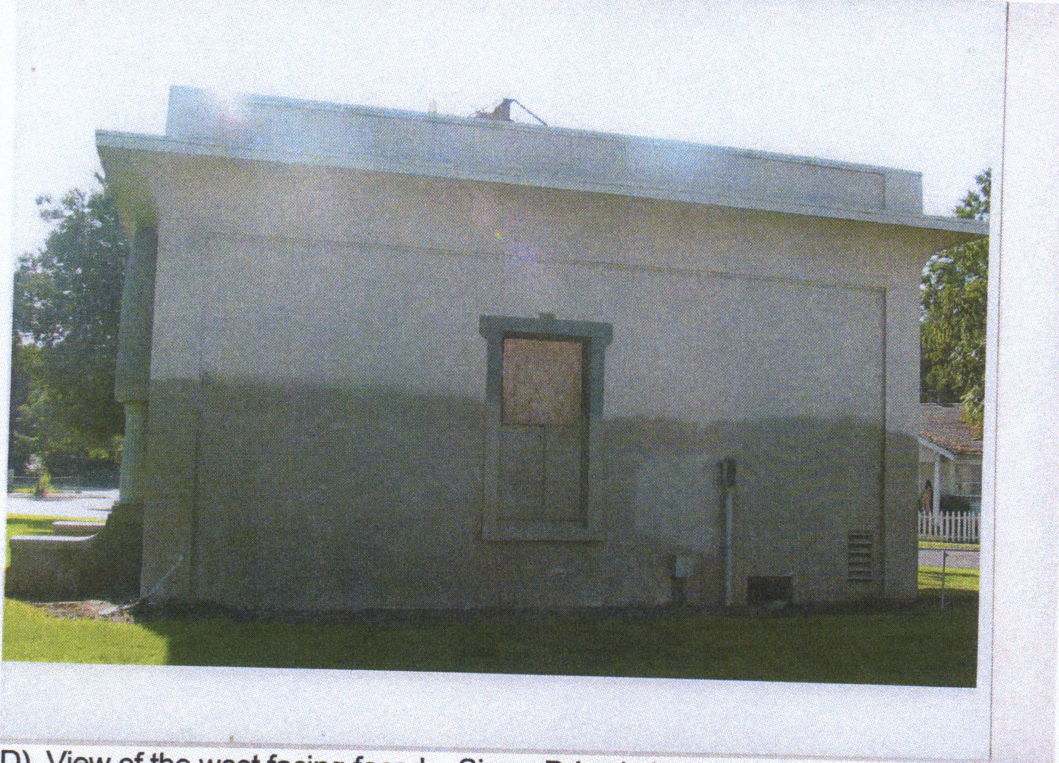


B) View of pump station (foreground), firehouse (background) looking east.

P-50-002018



C) View of south facing facade, 2<sup>nd</sup> Street in background, looking northeast.

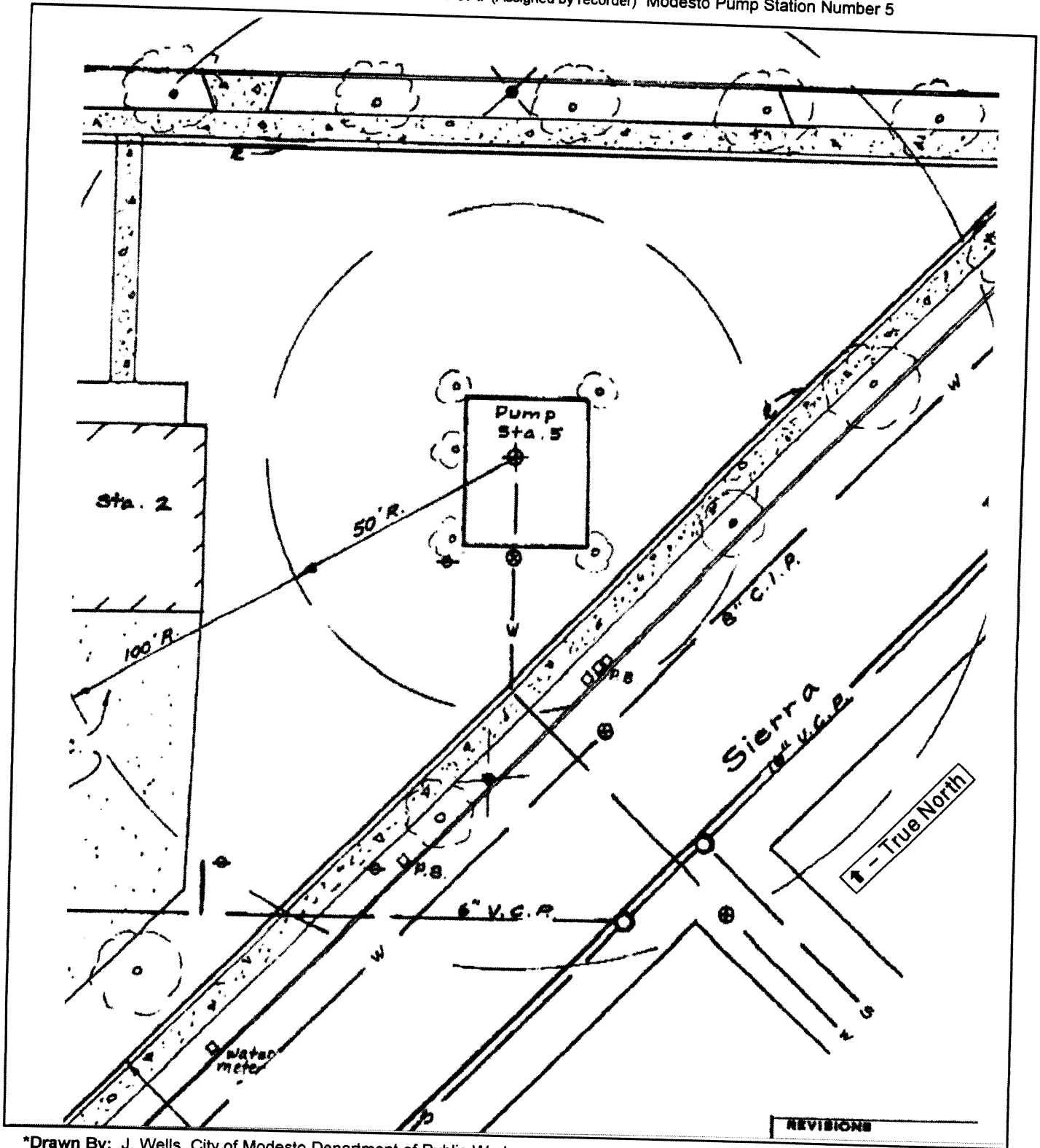


D) View of the west facing facade, Sierra Drive in background, looking southeast.

**SKETCH MAP**

Trinomial

\*Resource Name or # (Assigned by recorder) Modesto Pump Station Number 5

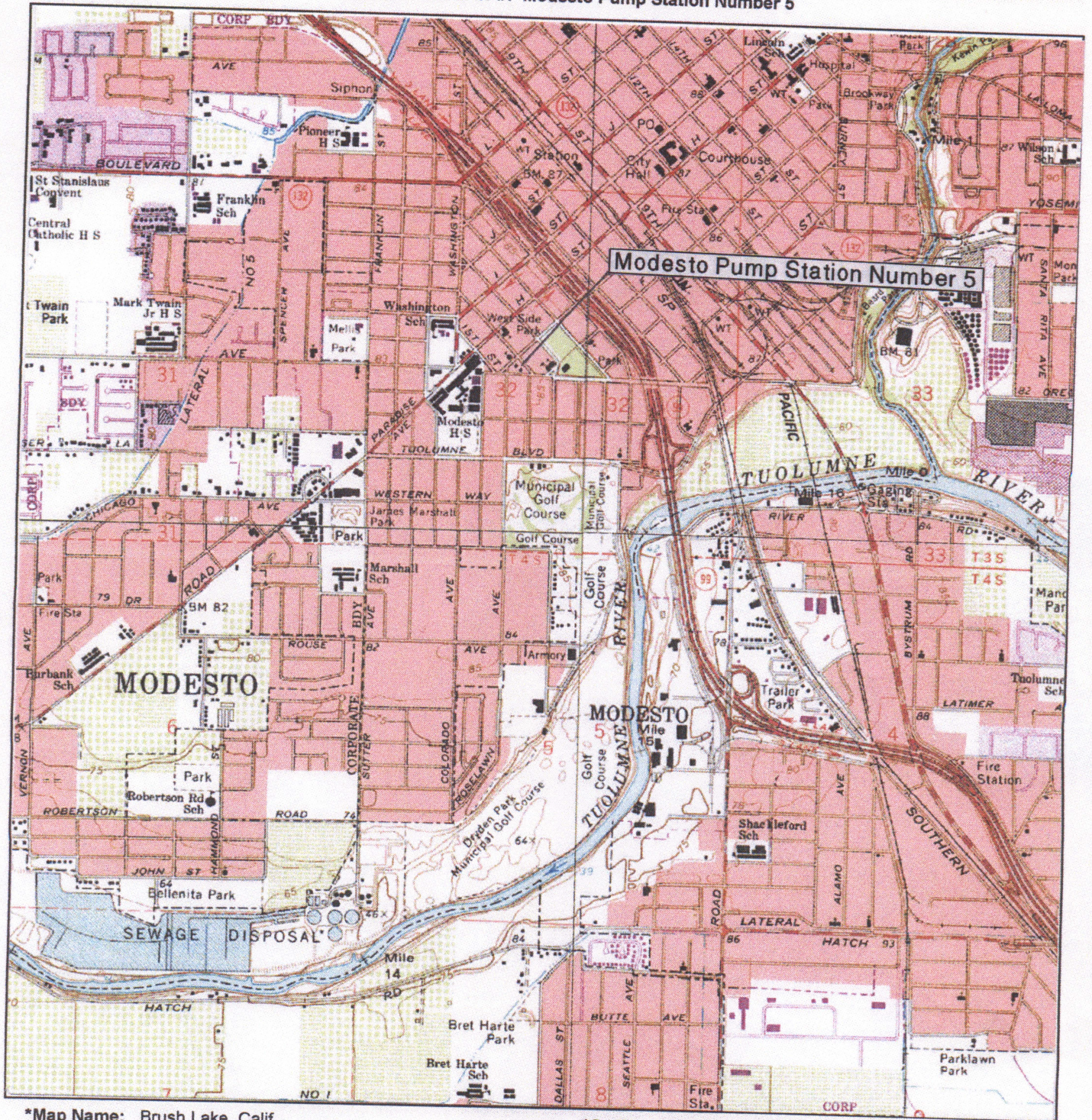


\*Drawn By: J. Wells, City of Modesto Department of Public Works  
DPR 523K (1/95) Scale 1 inch = 26.6 feet

\*Date: 8/6/81

\*Required information

\*Resource Name or #: Modesto Pump Station Number 5



\*Map Name: Brush Lake, Calif.  
DPR 523J (1/95)

\*Scale: 1:24,000 \*Date of Map: 1969 (1976)  
\*Required information

(Revised 3/2011)

no revised map found

City of Modesto  
Designated Landmark Preservation Sites

Site No.	Site	Address	Year Built	Date of City Council Designation
1	McHenry Mansion	906 15 <sup>th</sup> Street	1883	12/5/89
2	McHenry Museum	1402 I Street	1912	12/5/89
3	Modesto Arch	9 <sup>th</sup> and I Streets	1911-12	12/5/89
4	Modesto Ash Tree	Sierra & 3 <sup>rd</sup> Streets	Planted before 1911	10/9/90
5	Pump Station No. 9	10 <sup>th</sup> and Needham Streets	1930	10/9/90
6	Woolworth Company Sign	1014 10 <sup>th</sup> Street	Installed 1949	10/9/90
7	Fire Station No. 2	629 2 <sup>nd</sup> Street Demolished	1924	10/9/90
8	Cressey Manor	917 17 <sup>th</sup> Street	1917	11/13/90
9	Turner Hitching Post	1104 14 <sup>th</sup> Street	1871	4/23/91
10	Modesto News Herald Bldg.	726 10 <sup>th</sup> Street	1894	4/23/91
11	Hawke Castle	115 Magnolia Avenue	1929	4/23/91
12	McClure Country Place	800 N. McClure Road	1881	11/26/91
13	U.S. Post Office and Federal Bldg.	1125 I Street	1932-33	11/26/91
14	7 <sup>th</sup> Street Bridge <sup>"Lion Bridge"</sup>	7 <sup>th</sup> Street	1916	4/28/92
15	Fire Bell	629 2 <sup>nd</sup> Street moved to where?	1894	4/28/92
16	Enslin Park	Stoddard and Enslin Avenues	Purchased 1906	12/8/92
17	Graceada Park	Sycamore and Needham Avenues	Donated 1906	12/8/92
18	"Rammed Earth" House - Mrs. A. Bradley, owner	1027 N. Enslin Avenue	1934	7/13/93
19	Southern Pacific Transportation Center.	9 <sup>th</sup> and J Streets	1915	12/7/93
20	Ralph M. Brown Home	309 Magnolia Avenue	1923	3/22/94
21	Gallo Founders Bldg.	401 11 <sup>th</sup> Street	1928	3/22/94
22	The State Theatre	1307 J Street	1934	1/10/95
23	Graham Home	206 Roselawn Avenue	1921	7/25/95
24	Masonic Temple	1500 J Street	1917	7/25/95
25	Stockton Savings Bank	1101 J Street	c. 1935	7/25/95
26	H Street Facade of Modesto High School	18 H Street	1918	7/25/95
27	Wissner Medical Office Bldg.	901 McHenry Avenue	1937	11/14/95

City of Modesto  
Designated Landmark Preservation Sites

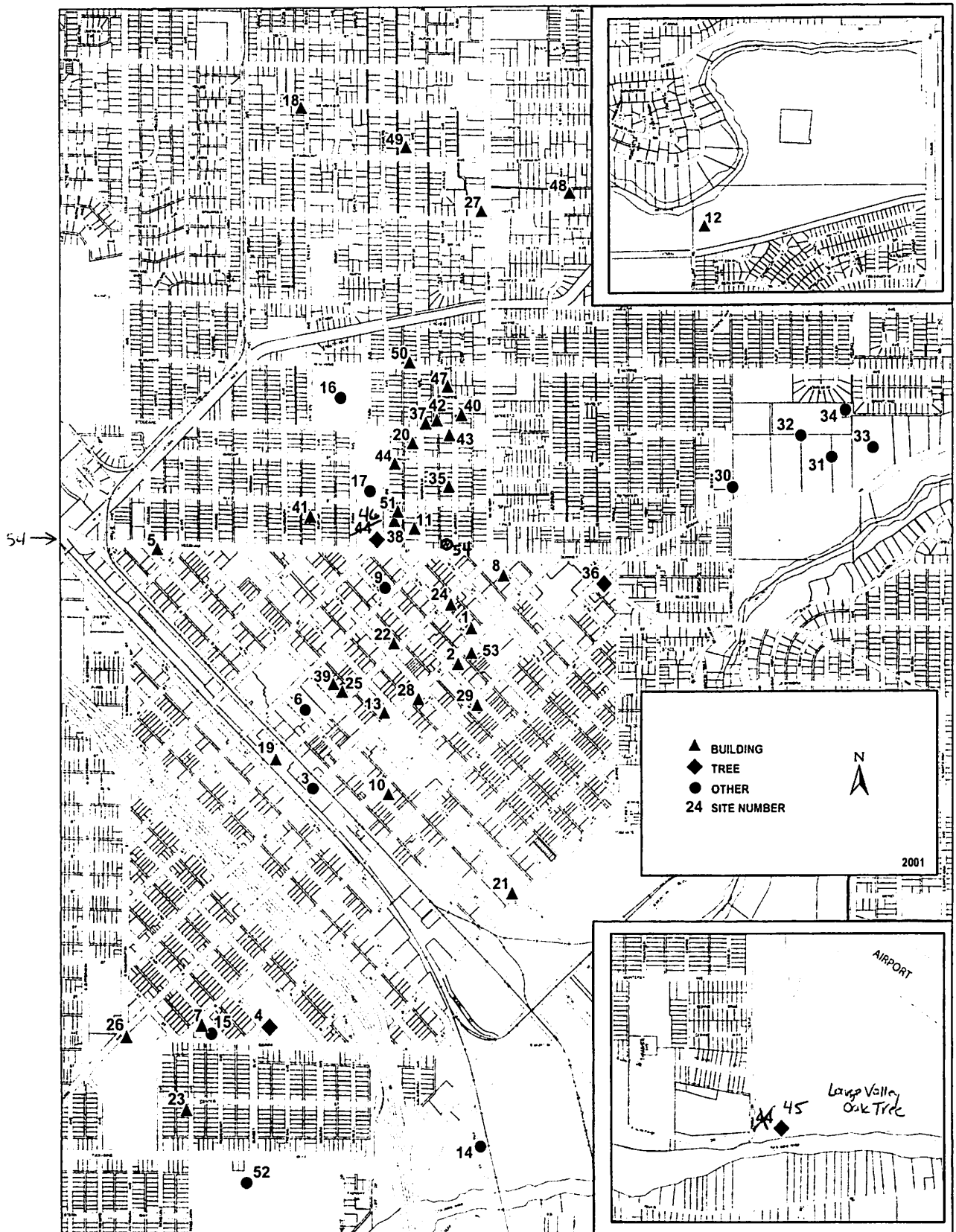
Page 2

Site No.	Site	Address	Year Built	Date of City Council Designation
28	Elk's Lodge	1222 I Street	1927	4/2/96
29	First Church of Christ Scientist	1328 H Street	1922	10/8/96
30	Acacia Memorial Park	801 Scenic Drive	1872	12/3/96
31	Modesto Pioneer Cemetery	905 Scenic Drive	1856	12/3/96
32	Modesto Cemetery	1001 Scenic Drive	1855	12/3/96
33	St. Stanislaus Catholic Cemetery	1141 Scenic Drive	1870	12/3/96
34	Stanislaus County Cemetery (aka Potter's Field)	1001 Scenic Drive	1872	12/3/96
35	Dr. Donald Robertson Home	211 Elmwood Court	1929	12/3/96
36	City's Christmas Tree	19 <sup>th</sup> /H/La Loma		3/25/97
37	The Stanley Home	225 Stoddard Avenue	1927	6/24/97
38	The John M. Walthall Home	118 Sycamore Ave.	1911	6/24/97
39	The Pacific Telephone	1012 11 <sup>th</sup> Street	1922	10/14/97
40	The Gundlach Residence	410 Elmwood Avenue	1937	11/12/97
41	Lish Residence	125 Poplar Avenue	1890's	3/24/98
42	Guzman Residence	215 Stoddard Avenue	1927	3/24/98
43	Ayres Residence	319 Elmwood Avenue	1923	3/24/98
44	Harris Home	230 Sycamore Avenue	1934	5/19/98
45	Large Valley Oak Tree	Tuolumne River Regional Park	Planted about 1858	7/14/98
46	Bunya Bunya Tree City of Modesto	Graceada Park on Needham Street	Planted in 1916	11/10/98
47	Balmannos Residence	207 Elmwood Court	1927	5/4/99
48	Cadrett Residence	201 Hintze Avenue	1931	7/27/99
49	Montrie & Robinson Residence	1001 Magnolia Avenue	1930	7/27/99
50	Anderson Residence (removed from landmark status on 3/27/07)	501 Magnolia Avenue	1922	8/24/99
51	Scully Residence	124 Sycamore Avenue	1925	10/10/00
52	Municipal Golf Course	400 Tuolumne Boulevard	1930's	3/27/01

City of Modesto  
 Designated Landmark Preservation Sites  
 Page 3

53	Apartments (historic name "Foy" Apartments)	1418 – 1430 I Street	1912	2/26/02
54	Centenary Methodist Church	201 Needham St.	1920	5/14/02
55	McDonald Residence (historic name "Johnson House")	503 W. Morris Ave.	1927	8/6/03
56	Draizen Residence (historic name "Dr. J.C. Robertson House")	215 Elmwood Ct.	1933	3/22/05
57	Lundgren Residence	218 Elmwood Ct.	1926	1/02/07
58	Garcia Residence (Historic name "William Silva House")	216 W. Morris Ave.	1925	6/12/07
59	Vickery Residence (Historic name "Ransom House")	305 Magnolia Ave.	1930	3/22/11

Revised 3/11

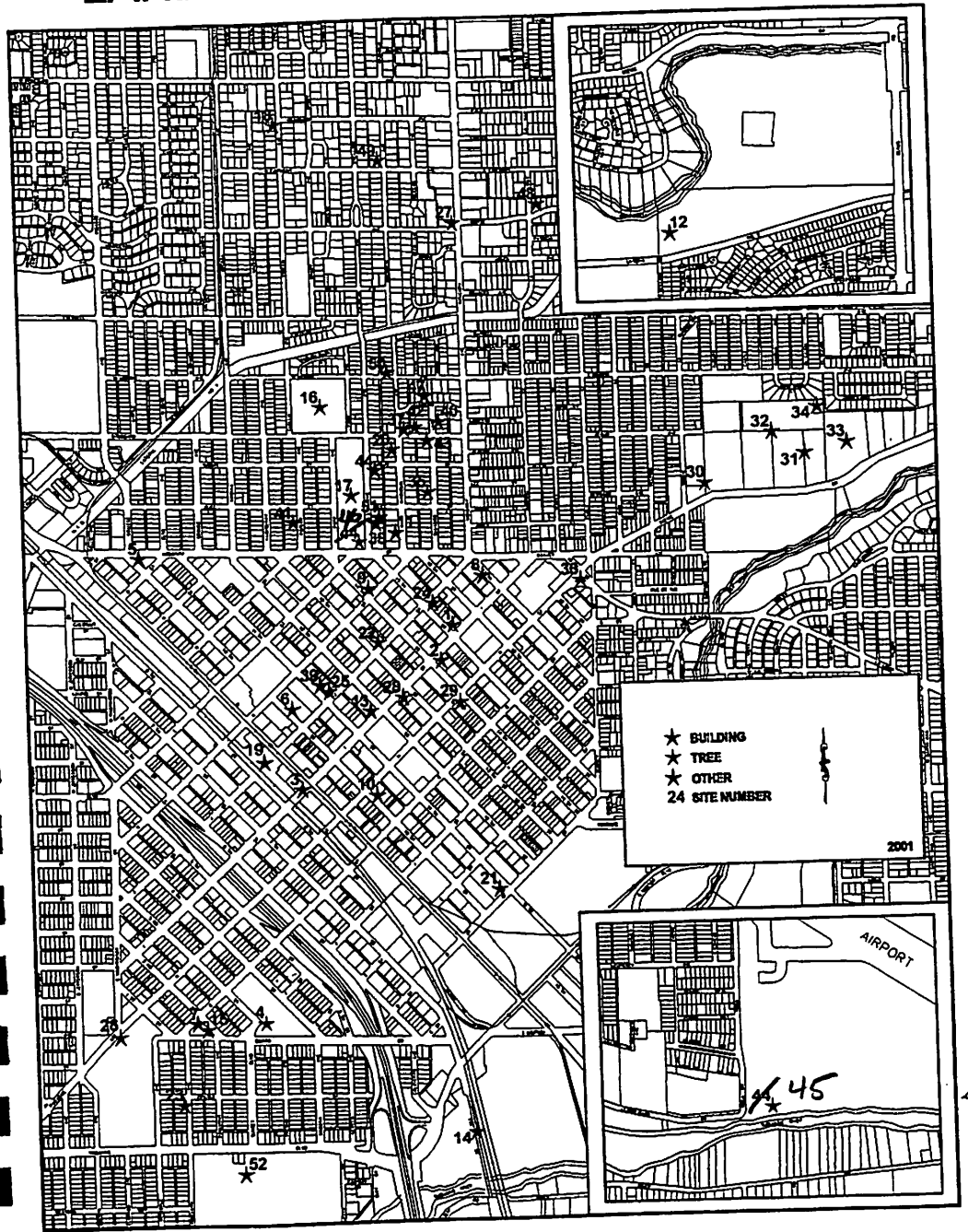


(# 55 → 59 are not shown)



**Appendix E**  
**Cultural: Designated Landmark  
Preservation Sites**

# LANDMARK PRESERVATION SITES



COPY

City of Modesto Landmark Preservation Sites, as of 2002. (see ST-4834 in Riverbank Quad

056109	50-000544	2928 5TH ST	DANIEL WHITMORE HOME	CERES	M	1870	HIST.RES. NAT.REG. ST.FND.PRJ	NPS-89000230-0000 50-0001 619.0-HP-88-50-001	04/05/89 04/05/89 12/22/88	1S 1S 3	BC
165911	1992	3213 6TH ST		CERES	P	1930	PROJ.REVW.	FHWA070117A	11/28/88	3S	
126314	50-001789	2307 CENTRAL AVE		CERES	P	1925	HIST.RES. PROJ.REVW.	DOE-50-00-0002-0000 FHWA000703A	07/25/00 07/25/00	6Y 6Y	
126315	50-001790	2311 CENTRAL AVE		CERES	P	1940	HIST.RES. PROJ.REVW.	DOE-50-00-0003-0000 FHWA000703A	07/25/00 07/25/00	6Y 6Y	
126316	50-001791	2313 CENTRAL AVE		CERES	P	1936	HIST.RES. PROJ.REVW.	DOE-50-00-0004-0000 FHWA000703A	07/25/00 07/25/00	6Y 6Y	
165910	1991	2601 DON PEDRO RD		CERES		1946	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
165909	1990	2624 DON PEDRO RD		CERES		1940	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
165908		2630 DON PEDRO RD	1989	CERES		1949	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
165907	1986	2632 DON PEDRO RD		CERES	P	1937	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
165906	1987	3824 EL CAMINO AVE		CERES	P	1947	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
165845	1986	3836 EL CAMINO AVE		CERES	P	1943	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
165844	1985	3912 EL CAMINO AVE		CERES	P	1940	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
165842	1984	3930 EL CAMINO AVE		CERES	P	1953	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
184606		2008 HOLLISTER ST		CERES	P	1949	PROJ.REVW.	HUD101208F	12/20/10	6Y	
165831	1974	4001 JOSEPH RD		CERES	P	1949	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
165830	1973	4002 JOSEPH RD		CERES	P	1950	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
165832	1975	4137 JOSEPH RD		CERES	P	1895	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
165834	1977	4005 LUCAS RD		CERES	P	1920	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
165822	1969	4385 LUCAS RD		CERES	P	1922	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
126313	50-001788	2079 MAGNOLIA ST		CERES	P	1947	HIST.RES. PROJ.REVW.	DOE-50-00-0001-0000 FHWA000703A	07/25/00 07/25/00	6Y 6Y	
165833	1976	4112 MOFFETT RD		CERES	P	1920	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
091215	50-000554	7624 MONTEREY AVE		CERES	P	1912	PROJ.REVW.	HUD940721G	08/24/94	6Y	
091116	50-000555	7700 MONTEREY AVE		CERES	P	1915	PROJ.REVW.	HUD940721H	08/24/94	6Y	
165821	1968	2901 REDWOOD RD		CERES	P	1905	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
165840	1983	2519 SERVICE RD		CERES	P	1950	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
165839	1982	2524 SERVICE RD		CERES	P	1956	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
165838	1981	2541 SERVICE RD		CERES	P	1925	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
165837	1980	2601 SERVICE RD		CERES	P	1940	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
165836	1979	2807 SERVICE RD		CERES	P	1928	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
165827	1977	2812 SERVICE RD		CERES	P	1950	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
165835	1976	2829 SERVICE RD		CERES	P	1945	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
165829	1972	2830 SERVICE RD		CERES	P	1950	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
165824	1971	2942 SERVICE RD		CERES	P	1953	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
165823	1970	2954 SERVICE RD		CERES	P	1952	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
126318	50-001793	2065 WHITMORE AVE		CERES	P	1938	HIST.RES. PROJ.REVW.	DOE-50-00-0006-0000 FHWA000703A	07/25/00 07/25/00	6Y 6Y	
126317	50-001792	2071 WHITMORE AVE		CERES	P	1945	HIST.RES. PROJ.REVW.	DOE-50-00-0005-0000 FHWA000703A	07/25/00 07/25/00	6Y 6Y	
126319	50-001794	2400 WHITMORE AVE	Herndon	CERES	P	1947	HIST.RES. PROJ.REVW.	DOE-50-00-0007-0000 FHWA000703A	07/25/00 07/25/00	6Y 6Y	
165913	50-000001		SOUTHERN PACIFIC SAN JOAQUIN MAINL	(VIC) CERES		1869	PROJ.REVW.	FHWA070117A	03/07/07	6Y	
176456	50-000007	3	CERES MAIN CANAL HATCH RD AT LATER	(VIC) CERES	D	1890	PROJ.REVW.	FHWA090810A	08/10/09	6Y	
102828	50-000556		METAL EQUIPMENT SHED-OAK FLAT RANC	CROWS LANDING		1950	PROJ.REVW.	COE960529A	07/28/96	6Y	
	50-000557		LARGE BARN-OAK FLAT RANCH	CROWS LANDING		1900	HIST.RES. PROJ.REVW.	DOE-50-96-0001-0000 COE960529A	07/28/96 07/28/96	6Y 6Y	
	558		SHED-OAK FLAT RANCH	CROWS LANDING			HIST.RES. PROJ.REVW.	DOE-50-96-0002-0000 COE960529A	07/28/96 07/28/96	6Y 6Y	

PROPERTY-NUMBER	PRIMARY-#	STREET-ADDRESS	NAMES	CITY-NAME	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
							HIST.RES	SHL-0347-0000	08/08/39	7L	
182152			CASHMAN CREEK VALVE HOUSE	(VIC) KNIGHTS FER	M	1932	PROJ.REVW.	COE110103A	02/25/11	2S2	A
182154			WILLMS RANCH	(VIC) KNIGHTS FER	P	1852	PROJ.REVW.	COE110103A	02/25/11	2S2	ABC
069643	50-000588		BASSO FERRY BRIDGE #38-61	LA GRANGE	U		PROJ.REVW.	65000565	04/29/82	2S	
126601	50-001855	HWY 132	JOHN MUIR CORRIDOR	LA GRANGE			REG.UNIT	50-0012	11/29/00	7W	
056434	50-000532	LA GRANGE RD	SAINT LOUIS CATHOLIC CHURCH	LA GRANGE	P	1854	HIST.RES.	NPS-79003460-0000	08/24/79	1S	
							HIST.SURV.	5329-0005-0000	01/01/79	1S	
056435	50-000533	LA GRANGE RD	LA GRANGE SCHOOLHOUSE	LA GRANGE	C	1875	HIST.RES.	NPS-79003462-0000	08/24/79	1S	
							HIST.SURV.	5329-0006-0000	01/01/79	1S	
056446	50-001786	ROBERTS FERRY RD	BRIDGE #38C-5 / ROBERTS FERRY BRID	LA GRANGE	C	1915	HIST.SURV.	5329-0017-0000	01/01/85	2S2	
							PROJ.REVW.	FHWA850823A	12/24/85	2S	
							PROJ.REVW.	65000665	12/24/85	2S	
056442	50-000531	YOSEMITE BLVD	LA GRANGE; FRENCH BAR	LA GRANGE	D	1851	HIST.SURV.	5329-0013-0000		7N	
							HIST.RES.	SHL-0414-0000	11/15/48	7L	
056443	50-000528	YOSEMITE BLVD	GOLD DREDGING CAMP GHOST TOWN	LA GRANGE	C	1906	HIST.SURV.	5329-0014-0000		7N	
056445	50-000583	YOSEMITE BLVD	LA GRANGE CITY JAIL	LA GRANGE	C	1900	HIST.SURV.	5329-0016-0000		7N	
056436	50-000534	YOSEMITE BLVD	OLD ADOBE BARN/ADOBE POST OFFICE	LA GRANGE	C	1849	HIST.RES.	NPS-79003462-0000	08/24/79	1S	
							HIST.SURV.	5329-0007-0000	01/01/79	1S	
056437	50-000538	YOSEMITE BLVD	STAGE STOP/SAUNDERS STORE	LA GRANGE	C	1850	HIST.RES.	NPS-79003463-0000	08/24/79	1S	
							HIST.SURV.	5329-0008-0000	01/01/79	1S	
056438	50-000536	YOSEMITE BLVD	SHELL GAS STATION	LA GRANGE	P	1935	HIST.RES.	NPS-79003464-0000	08/24/79	1S	
							HIST.SURV.	5329-0009-0000	01/01/79	1S	
095957	50-000584	29948 YOSEMITE BLVD		LA GRANGE	P	1885	PROJ.REVW.	HUD950407F	05/26/95	6Y	
098585	50-000585	30000 YOSEMITE BLVD		LA GRANGE	P	1930	PROJ.REVW.	HUD951025C	12/04/95	6Y	
095498	50-000586	30024 YOSEMITE BLVD		LA GRANGE	P	1900	PROJ.REVW.	HUD950407E	05/26/95	6Y	
							PROJ.REVW.	HUD950223C	04/12/95	6Y	
056440	50-000539	30048 YOSEMITE BLVD	LOUIE'S PLACE/L LEVAGGI SALOON	LA GRANGE	P	1897	HIST.RES.	NPS-79003466-0000	08/24/79	1S	
							HIST.SURV.	5329-0011-0000	01/01/79	1S	
056439	50-000535	30054 YOSEMITE BLVD	KINGEN HOTEL	LA GRANGE	P	1915	HIST.RES.	NPS-79003465-0000	08/24/79	1S	A
							HIST.SURV.	5329-0010-0000	08/24/79	1S	A
056444	50-000587	30124 YOSEMITE BLVD	HAMMOND AND BATES STORE; SELIAS MA	LA GRANGE	P	1887	HIST.SURV.	5329-0015-0000		7N	
056441	50-000537	38018 YOSEMITE BLVD	ODD FELLOWS HALL/LA GRANGE IOOF HA	LA GRANGE	P	1855	NAT.REG.	50-0007	09/14/92	7K	
							HIST.RES.	NPS-79003467-0000	08/24/79	1S	
							HIST.SURV.	5329-0012-0000	01/01/79	1S	
091465	50-000550	LA GRANGE DAM RD	LA GRANGE DAM	(VIC) LA GRANGE	D	1891	HIST.RES.	SPHI-STA-003	07/31/79	7L	
056430	50-000528	LA GRANGE RD	GOLD DREDGE	(VIC) LA GRANGE	P	1937	HIST.SURV.	5329-0001-0001	12/01/73	1S	
							HIST.RES.	NPS-71000208-0000	12/16/71	1S	A
056431	50-000588	SR 132	BASSO'S FERRY BRIDGE, BRIDGE #38-6	(VIC) LA GRANGE	S	1911	HIST.SURV.	5329-0002-0000		3S	
							PROJ.REVW.	65000565	04/29/82		
056432	50-000589	SR 132	BRIDGE #38-62	(VIC) LA GRANGE	S	1918	HIST.RES.	DOE-50-86-0003-0000	10/19/86	2S2	C
							PROJ.REVW.	FHWA860919Z	10/19/86	2S2	C
							HIST.SURV.	5329-0003-0000		7N	
056433	50-000590	SR 132	BRIDGE #38-63	(VIC) LA GRANGE	S	1918	HIST.SURV.	5329-0004-0000		7N	
167906	P-50-2155		DR. MOORE CANAL	MODESTO	M	1911	PROJ.REVW.	FHWA070319E	04/23/07	6Y	
069648	50-001785		SOUTHERN PACIFIC RAILROAD DEPOT	MODESTO	U		PROJ.REVW.	65001057	02/24/83	2S	
175993	50-006001		SOUTHERN PACIFIC RAILROAD SAN JOAQ	MODESTO	P	1869	PROJ.REVW.	FHWA090603A	06/22/09	6Y	
175994	50-000075		MODESTO IRRIGATION DISTRICT LATERA	MODESTO# 4	D		PROJ.REVW.	FHWA090603A	06/22/09	6Y	
183071			MID-LATERAL #3	MODESTO	M	1950	PROJ.REVW.	FHWA100707A	07/22/10	6Y	
079385	50-000523	1517 10TH ST	RAINBO BAKERY	MODESTO	P	1931	HIST.RES.	DOE-50-92-0010-0000	11/13/92	6Y	
							PROJ.REVW.	FHWA920923B	11/13/92	6Y	
* 079386	50-000524	110 11TH ST	BOOTH'S PACKING COMPANY	MODESTO	P	1960	HIST.RES.	DOE-50-92-0011-0000	11/13/92	6Y	
							PROJ.REVW.	FHWA920923B	11/13/92	6Y	

ST-7586 area

Salida + Riverbank 7.5' T&S/R 9E S - 30, 29, 28  
 (possibly eval'd where it crosses McHenry Ave (SR 132?))

OFFICE OF HISTORIC PRESERVATION * * * Directory of Properties in the Historic Property Data File for STANISLAUS County.										Page 5	03-20-14
PROPERTY-NUMBER	PRIMARY-#	STREET ADDRESS	NAMES	CITY.NAME	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
057747	50-000591	1012 11TH ST	PACIFIC TELEPHONE BUILDING, OLD TE	MODESTO	P	1922	HIST.SURV.	5352-0072-0000		3S	
057965	50-000543	12TH ST	MODESTO UNITED STATES POST OFFICE	MODESTO	F	1932	HIST.RES.	NPS-83001246-0000	02/10/83	1S	
137006		401 14TH ST		MODESTO	P	1951	HIST.SURV.	5352-0110-0000	01/01/83	1S	
150932		618 14TH ST		MODESTO	P	1910	HIST.RES.	DOE-50-02-0010-0000	12/12/02	6Y	
057748	50-000592	909 14TH ST	HATTON HOME, DAVIS HOME	MODESTO	P	1880	PROJ.REVW.	FHWA021015B	12/12/02	6Y	
057749	50-000593	915 14TH ST	DELAPPE HOUSE, SHALOM COUNSELING C	MODESTO	P	1909	HIST.RES.	DOE-50-04-0023-0000	07/26/04	6Y	
057750	50-000594	1015 14TH ST	SOL P ELIAS HOME, MARTIN RUDDY OFF	MODESTO	P	1909	TAX.CERT.	HUD040706C	07/26/04	6Y	
057751	50-000595	1022 14TH ST	HOWARD HOUSE, FAMILY SERVICE AGENC	MODESTO	P	1917	HIST.SURV.	537.9-50-0001	09/16/91	7J	
057752	50-000596	1025 14TH ST	BLAKE HOUSE	MODESTO	P	1919	HIST.SURV.	5352-0073-0000		3S	
057753	50-000597	1104 14TH ST	TURNER HOME, DINOS HAIR STYLISTS	MODESTO	P	1917	HIST.SURV.	5352-0074-0000		5S2	
057754	50-000598	1116 14TH ST	FALK RESIDENCE, FLESORAS HOME	MODESTO	P	1917	HIST.SURV.	5352-0075-0000		5S2	
057755	50-000599	1126 14TH ST	MADDUX HOUSE, MORGAN HOME	MODESTO	P	1917	HIST.SURV.	5352-0076-0000		5S2	
096955	50-000600	403 15TH ST		MODESTO	P	1925	HIST.SURV.	5352-0077-0000		7N	
096957	50-000601	405 15TH ST		MODESTO	P	1920	HIST.SURV.	5352-0078-0000		5S2	
057756	50-000602	825 15TH ST	THE BOONE HOME, JAMES APARTMENTS	MODESTO	P	1917	PROJ.REVW.	HUD950616E	07/28/95	6Y	
057556	50-000530	906 15TH ST	MCHENRY MANSION	MODESTO	M	1883	PROJ.REVW.	HUD060608B	11/14/06	6Y	
057758	50-000603	921 15TH ST	MOORE HOME, OFFICE OF DR. EASTIN	MODESTO	P	1936	PROJ.REVW.	HUD950616F	07/28/95	6Y	
136805		523 16TH ST		MODESTO	P	1922	HIST.SURV.	5352-0081-0000		5S2	
057964	50-000604	612 16TH ST	BISHOP HOUSE	MODESTO	P	1882	ST.FND.PRG	619.0-84-HP-50-006	12/23/88	3	
057759	50-000605	850 16TH ST	FIRST METHODIST EPISCOPAL CHURCH,	MODESTO	P	1931	ST.FND.PRG	619.0-84-HP-50-001	09/30/86	3	
057760	50-000606	1015 16TH ST	BROUGHTON HOME, BAIRDS PHOTOGRAPHI	MODESTO	P	1914	HIST.RES.	SPHI-STA-004	07/31/79	7L	
057761	50-000607	1025 16TH ST	W. D. THOMAS HOUSE, LAW OFFICES OF	MODESTO	P	1934	HIST.RES.	NPS-78000805-0000	04/04/78	1S	
057762	50-000608	821 17TH ST	STEVENS HOME	MODESTO	P	1914	HIST.SURV.	5352-0001-0000	01/01/78	1S	
057763	50-000609	823 17TH ST		MODESTO	P	1917	HIST.SURV.	5352-0001-0000		3	
057764	50-000610	915 17TH ST	CRESSEY HOME, HUSLAND HOUSE	MODESTO	P	1917	HIST.SURV.	5352-0083-0000		7R	
066360	50-000611	822 1ST ST	REHABILITATION OF HOUSE	MODESTO	U		PROJ.REVW.	HUD030109G	01/15/03	6Y	
067075	50-000612	707 3RD ST		MODESTO	U		PROJ.REVW.	HUD030109G	01/15/03	6Y	
139206		811 3RD ST		MODESTO	P	1918	HIST.RES.	DOE-50-03-0003-0000	01/15/03	6Y	
068072	50-000613	430 4TH ST		MODESTO	U		PROJ.REVW.	HUD871109L	12/15/87	6Y	
057757	50-000614	1024 4TH ST	CLINTON CHAPEL AFRICAN METHODIST C	MODESTO	P	1902	HIST.SURV.	5352-0082-0000	02/01/90	6Y	
065619	50-000615	625 5TH ST		MODESTO	U		PROJ.REVW.	HUD900102H	02/01/90	6Y	
163406		821 5TH ST	MODESTO MOOSE LODGE CHAPTER #1608	MODESTO	P	1925	HIST.RES.	DOE-50-03-0009-0000	04/16/03	6Y	
095985	50-000616	308 6TH ST	08	MODESTO	P	1935	PROJ.REVW.	HUD030404D	04/16/03	6Y	
114971	50-000617	7TH ST	BRIDGE #38C-23 / SEVENTH STREET BR	MODESTO	C	1916	HIST.RES.	DOE-50-86-0001-0000	10/19/86	2S2	AC
066449	50-000618	930 7TH ST	MODESTO HOUSING REHABILITATION	MODESTO	U		PROJ.REVW.	HUD881209H	01/04/89	6Y	
137008	82	9TH ST	TIDEWATER BRANCH UNION PACIFIC RAI	MODESTO	P	1912	HIST.RES.	DOE-50-02-0012-0000	12/12/02	6Y	
057963	50-000619	9TH ST	SOUTHERN PACIFIC RAILROAD DEPOT, S	MODESTO	C		HIST.SURV.	5352-0108-0000	11/01/83	2S2	
079380	50-000620	0 9TH ST	NINTH & NEEBHAM STREET COMMERCIAL	MODESTO	P	1950	HIST.RES.	DOE-50-92-0005-9999	11/13/92	6Y	
							PROJ.REVW.	FHWA920923B	11/13/92	6Y	

PROPERTY-NUMBER	PRIMARY-#	STREET ADDRESS	NAMES	CITY NAME	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
079379	50-000621	102 9TH ST	ASSOCIATED OIL COMPANY	MODESTO	P	1910	HIST.RES.	DOE-50-92-0004-0000	11/13/92	6Y	
137007		402 9TH ST	UNION PACIFIC RAILWAY OFFICE/ TIDE	MODESTO	P	1935	PROJ.REVW.	FHWA920923B	11/13/92	6Y	
073073	50-000622	1029 9TH ST	RAILWAY EXPRESS AGENCY, R. J. SWEE	MODESTO	P	1919	HIST.RES.	DOE-50-02-0011-0000	12/12/02	6Y	
079384	50-000623	1518 9TH ST	MODESTO VETERINARY HOSPITAL	MODESTO	P	0	PROJ.REVW.	FHWA021015B	12/12/02	6Y	
							NAT.REG.	50-0004	08/31/89	7J	
079382	50-000624	1602 9TH ST	OLD MILL CAFE	MODESTO	P	1935	HIST.RES.	DOE-50-92-0007-0000	11/13/92	6Y	
							PROJ.REVW.	FHWA920923B	11/13/92	6Y	
057745	50-000625	117 ACHOR CT		MODESTO	P	1927	HIST.SURV.	5352-0070-0000		7R	
057746	50-000626	119 ACHOR CT		MODESTO	P	1926	HIST.SURV.	5352-0071-0000		7R	
057559	50-000627	203 ACHOR CT		MODESTO	P	1925	HIST.SURV.	5352-0004-0000		7R	
057560	50-000628	522 ADAM AVE		MODESTO	P	1922	HIST.SURV.	5352-0005-0000		5S2	
057561	50-000629	529 ADAM AVE		MODESTO	P	1924	HIST.SURV.	5352-0006-0000		7R	
181523		ALAMO AVE		MODESTO	P	1945	PROJ.REVW.	HUD110204J	02/07/11	6Y	
182243		1310 ALAMO AVE		MODESTO	P	1940	PROJ.REVW.	HUD110401D	04/13/11	6Y	
183066		1432 ALBANY AVE		MODESTO	P	1951	PROJ.REVW.	HUD1007280	08/28/10	6Y	
169782		201 ALGEN AVE		MODESTO	P	1981	PROJ.REVW.	HUD071206D	12/12/07	6Y	
057775	50-000630	815 ALICE AVE		MODESTO	P	1940	HIST.SURV.	5352-0098-0003		7R	
057776	50-000631	816 ALICE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0004		5D2	
057774	50-000632	823 ALICE AVE		MODESTO	P	1918	HIST.SURV.	5352-0098-0002		5D2	
057773	50-000633	915 ALICE AVE		MODESTO	P	1941	HIST.SURV.	5352-0098-0001		7R	
057859	50-000634	ALICE ST	NORTH ADDITION WISECARVER TRACT	MODESTO	P	1912	HIST.SURV.	5352-0098-9999		5D2	
057937	50-000635	616 ALICE ST		MODESTO	P	1920	HIST.SURV.	5352-0099-0078		5D2	
057938	50-000636	717 ALICE ST		MODESTO	P	1920	HIST.SURV.	5352-0099-0079		5D2	
057588	50-000646	ALMOND AVE		MODESTO	P	1914	HIST.SURV.	5352-0025-9999		5D2	
057580	50-000638	112 ALMOND AVE		MODESTO	P	1925	HIST.SURV.	5352-0025-0001		5D2	
057581	50-000639	114 ALMOND AVE		MODESTO	P	1926	HIST.SURV.	5352-0025-0002		5D2	
057582	50-000640	117 ALMOND AVE		MODESTO	P	1922	HIST.SURV.	5352-0025-0003		5D2	
057583	50-000641	124 ALMOND AVE		MODESTO	P	1919	HIST.SURV.	5352-0025-0004		5D2	
057584	50-000642	125 ALMOND AVE		MODESTO	P	1917	HIST.SURV.	5352-0025-0005		5D2	
057585	50-000643	131 ALMOND AVE		MODESTO	P	1924	HIST.SURV.	5352-0025-0006		5D2	
057586	50-000644	139 ALMOND AVE		MODESTO	P	1924	HIST.SURV.	5352-0025-0007		5D2	
057587	50-000645	140 ALMOND AVE		MODESTO	P	1914	HIST.SURV.	5352-0025-0008		5D2	
082343	50-000646	302 ALTURAS AVE		MODESTO	P	1930	PROJ.REVW.	HUD930603J	06/11/93	6Y	
066279	50-000647	318 ALTURAS AVE	RESIDENCE	MODESTO	U		PROJ.REVW.	HUD870930D	10/28/87	6Y	
066249	50-000648	322 ALTURAS AVE	RESIDENCE	MODESTO	U		PROJ.REVW.	HUD870921U	10/21/87	6Y	
067001	50-000649	323 ALTURAS AVE		MODESTO	U		PROJ.REVW.	HUD891018L	11/22/89	6Y	
065512	50-000650	330 ALTURAS AVE		MODESTO	U		PROJ.REVW.	HUD881020M	11/14/88	6Y	
066477	50-000651	341 ALTURAS AVE	HOUSING REHABILITATION	MODESTO	P	1928	PROJ.REVW.	HUD930603bb	06/11/93	6Y	
080879	50-000652	345 ALTURAS AVE		MODESTO	U	1928	PROJ.REVW.	HUD880209B	03/07/88		
066471	50-000653	405 ALTURAS AVE	HOUSING REHABILITATION	MODESTO	U		PROJ.REVW.	HUD930311W	04/21/93	6Y	
066064	50-000654	429 ALTURAS AVE		MODESTO	U		PROJ.REVW.	HUD880209C	03/07/88	6Y	
140420		5043 AMERICAN AVE		MODESTO	U		PROJ.REVW.	HUD890727F	08/25/89	6Y	
057777	50-000655	1104 ARC AVE		MODESTO	P	1916	HIST.RES.	DOE-50-00-0033-0000	11/16/00	6Y	
057778	50-000656	1112 ARC AVE		MODESTO	P	1923	PROJ.REVW.	FHWA001020A	11/16/00	6Y	
057779	50-000657	1116 ARC AVE		MODESTO	P	1940	HIST.SURV.	5352-0098-0005		5D2	
057780	50-000658	1120 ARC AVE		MODESTO	P	1940	HIST.SURV.	5352-0098-0006		7R	
057781	50-000659	1130 ARC AVE		MODESTO	P	1940	HIST.SURV.	5352-0098-0007		7R	
175031		1529 ARDMORE AVE		MODESTO	P	1940	HIST.SURV.	5352-0098-0008		7R	
183216		1605 ARDMORE AVE		MODESTO	P	1940	HIST.SURV.	5352-0098-0009		7R	
177512		1632 BEDFORD AVE		MODESTO	P	1951	PROJ.REVW.	HUD090225F	03/25/09	6Y	
102824	50-000660	608 BENSON AVE		MODESTO	P	1955	PROJ.REVW.	HUD100630J	07/21/10	6Y	
096386	50-000661	620 BENSON AVE		MODESTO	P	1951	PROJ.REVW.	HUD091221H	01/20/10	6Y	
				MODESTO	P	1940	PROJ.REVW.	HUD960624D	07/30/96	6Y	
				MODESTO	P	1939	PROJ.REVW.	HUD950627A	07/03/95	6Y	

*bound/gone →*  
*turn down →*

*\**

*includes P-50 -*  
*630 - 633,*  
*655 - 659,*  
*671 - 682,*  
*959 - 961,*  
*971 - 1013,*  
*1014 - 1017,*  
*1195 - 1197,*  
*1200, 1206,*  
*1209 - 1213,*  
*1223 - 1229*

OFFICE OF HISTORIC PRESERVATION * * * Directory of Properties in the Historic Property Data File for STANISLAUS County.										Page 7	03-20-14
PROPERTY-NUMBER	PRIMARY-#	STREET ADDRESS	NAMES	CITY NAME	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
180176		625 BENSON AVE		MODESTO	P	1937	PROJ. REVW.	HUD100621L	07/16/10	6Y	
092889	50-000662	701 BENSON AVE		MODESTO	P	1935	PROJ. REVW.	HUD940908B	11/16/94	6Y	
101327	50-000663	803 BENSON AVE		MODESTO	P	1920	PROJ. REVW.	HUD960208H	03/19/96	6Y	
099935	50-000664	805 BENSON AVE		MODESTO	P	1943	PROJ. REVW.	HUD951215C	01/09/96	6Y	
092897	50-000665	821 BENSON AVE		MODESTO	P	1945	PROJ. REVW.	HUD940930A	11/16/94	6Y	
150628		505 BODEM ST		MODESTO	P	1920	HIST. RES.	DOE-50-04-0021-0000	03/17/04	6Y	
							PROJ. REVW.	HUD040225D	03/17/04	6Y	
093935	50-000666	525 BODEM ST		MODESTO	P	1916	PROJ. REVW.	HUD941208F	12/27/94	6Y	
169783		1601 BOISE AVE		MODESTO	P	1981	PROJ. REVW.	HUD071206D	12/12/07	6Y	
185002		124 BONITA CR		MODESTO	P	1954	PROJ. REVW.	HUD101018U	11/01/10	6Y	
167339		505 BRIGGS AVE		MODESTO	P	1950	PROJ. REVW.	HUD070521G	05/25/07	6Y	
167340		513 BRIGGS AVE		MODESTO	P	1940	PROJ. REVW.	HUD070521H	05/25/07	6Y	
167341		519 BRIGGS AVE		MODESTO	P	1935	PROJ. REVW.	HUD070521I	05/25/07	6Y	
167342		529 BRIGGS AVE		MODESTO	P	1934	PROJ. REVW.	HUD070521J	05/25/07	6Y	
167343		617 BRIGGS AVE		MODESTO	P	1989	PROJ. REVW.	HUD070521K	05/25/07	6Y	
167344		628 BRIGGS AVE		MODESTO	P	1921	PROJ. REVW.	HUD070521L	05/25/07	6Y	
167345		708 BRIGGS AVE		MODESTO	P	1990	PROJ. REVW.	HUD070521M	05/25/07	6Y	
167346		709 BRIGGS AVE		MODESTO	P	1946	PROJ. REVW.	HUD070521N	05/25/07	6Y	
167347		717 BRIGGS AVE		MODESTO	P	1946	PROJ. REVW.	HUD070521O	05/25/07	6Y	
167348		809 BRIGGS AVE		MODESTO	P	1946	PROJ. REVW.	HUD070521P	05/25/07	6Y	
167349		811 BRIGGS AVE		MODESTO	P	1946	PROJ. REVW.	HUD070521Q	05/25/07	6Y	
167350		819 BRIGGS AVE		MODESTO	P	1918	PROJ. REVW.	HUD070521R	05/25/07	6Y	
167351		914 BRIGGS AVE		MODESTO	P	1961	PROJ. REVW.	HUD070521S	05/25/07	6Y	
167352		920 BRIGGS AVE		MODESTO	P	1951	PROJ. REVW.	HUD070521T	05/25/07	6Y	
167353		1000 BRIGGS AVE		MODESTO	P	1984	PROJ. REVW.	HUD070521U	05/25/07	6Y	
183064		408 BRODERICK AVE		MODESTO	P	1958	PROJ. REVW.	HUD100728M	08/02/10	6Y	
183248		2605 BUDD ST		MODESTO	P	1955	PROJ. REVW.	HUD100630F	07/21/10	6Y	
183086		620 CALIFORNIA AVE		MODESTO	P	1925	PROJ. REVW.	HUD100628O		6Y	
183092		202 CAMELLIA WY		MODESTO	P	1947	PROJ. REVW.	HUD100701E	07/21/10	6Y	
183995		1511 CARLTON AVE		MODESTO	P	1953	PROJ. REVW.	HUD101007B	10/18/10	6Y	
183059		2243 CAROL ST		MODESTO	P	1950	PROJ. REVW.	HUD100727A	08/02/10	6Y	
090656	50-000667	533 CASTLE ST		MODESTO	P	1924	PROJ. REVW.	HUD940701F	08/11/94	6Y	
082360	50-000668	513 CENTER ST		MODESTO	P	1925	PROJ. REVW.	HUD930603b	06/11/93	6Y	
082348	50-000669	706 CENTER ST		MODESTO	P	1926	PROJ. REVW.	HUD930603P	06/11/93	6Y	
066067	50-000670	711 CENTER ST		MODESTO	P	1920	PROJ. REVW.	HUD930603h	06/11/93	6Y	
							PROJ. REVW.	HUD890727I	08/25/89	6Y	
176958		1505 CLAUD AVE		MODESTO	P	1946	PROJ. REVW.	HUD090929E	10/23/09	6Y	
153736		2217 COFFEE RD		MODESTO	P	1924	PROJ. REVW.	HUD050404Z	04/18/05	6Y	
183250		1409 COLIN LANE		MODESTO	P	1960	PROJ. REVW.	HUD100630G	07/21/10	6Y	
057782	50-000671	110 COLLEGE AVE		MODESTO	P	1914	HIST. SURV.	5352-0098-0010		5D2	
057783	50-000672	116 COLLEGE AVE		MODESTO	P	1914	HIST. SURV.	5352-0098-0011		5D2	
057784	50-000673	126 COLLEGE AVE		MODESTO	P	1914	HIST. SURV.	5352-0098-0012		5D2	
057785	50-000674	130 COLLEGE AVE		MODESTO	P	1922	HIST. SURV.	5352-0098-0013		5D2	
057786	50-000675	133 COLLEGE AVE		MODESTO	P	1919	HIST. SURV.	5352-0098-0014		5D2	
057787	50-000676	136 COLLEGE AVE		MODESTO	P	1922	HIST. SURV.	5352-0098-0015		5D2	
057788	50-000677	201 COLLEGE AVE		MODESTO	P	1931	HIST. SURV.	5352-0098-0016		5D2	
057789	50-000678	208 COLLEGE AVE		MODESTO	P	1914	HIST. SURV.	5352-0098-0017		5D2	
057790	50-000679	210 COLLEGE AVE		MODESTO	P	1922	HIST. SURV.	5352-0098-0018		5D2	
057791	50-000680	310 COLLEGE AVE		MODESTO	P	1931	HIST. SURV.	5352-0098-0019		5D2	
057792	50-000681	314 COLLEGE AVE		MODESTO	P	1927	HIST. SURV.	5352-0098-0020		5D2	
057795	50-000682	318 COLLEGE AVE		MODESTO	P	1941	HIST. SURV.	5352-0098-0023		7R	
180177		458 COLLEGE AVE		MODESTO	P	1939	PROJ. REVW.	HUD100621M	07/16/10	6Y	
065806	50-000683	311 COLORADO AVE	HOUSING REHABILITATION	MODESTO	P		PROJ. REVW.	HUD930603r	06/11/93	6Y	
							PROJ. REVW.	HUD890417E	05/18/89	6Y	
082377	50-000684	323 COLORADO AVE		MODESTO	P	1940	PROJ. REVW.	HUD930603u	06/11/93	6Y	

PROPERTY-NUMBER	PRIMARY-#	STREET ADDRESS	NAMES	CITY NAME	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
065807	50-000685	326 COLORADO AVE	HOUSING REHABILITATION	MODESTO	U		PROJ. REVW.	HUD900102A	02/01/90	6Y	
082376	50-000686	333 COLORADO AVE		MODESTO	P	1923	PROJ. REVW.	HUD890417F	05/18/89	6Y	
082375	50-000687	335 COLORADO AVE		MODESTO	P	1923	PROJ. REVW.	HUD930603C	06/11/93	6Y	
066816	50-000688	339 COLORADO AVE		MODESTO	U		PROJ. REVW.	HUD930603B	06/11/93	6Y	
067229	50-000689	342 COLORADO AVE		MODESTO	U	1920	PROJ. REVW.	HUD880726L	08/26/88	6Y	
				MODESTO	U		PROJ. REVW.	HUD930311Q	04/21/93	6Y	
065623	50-000690	402 COLORADO AVE		MODESTO	U	1926	PROJ. REVW.	USFS900321B	04/16/90	6Y	
				MODESTO	U		PROJ. REVW.	HUD100628Q	07/21/10	6Y	
				MODESTO	U		PROJ. REVW.	HUD930311T	04/21/93	6Y	
				MODESTO	U		PROJ. REVW.	HUD881209M	01/04/89	6Y	
082381	50-000691	406 COLORADO AVE		MODESTO	P	1932	PROJ. REVW.	HUD930603Y	06/11/93	6Y	
065624	50-000692	418 COLORADO AVE		MODESTO	U		PROJ. REVW.	HUD881209N	01/04/89	6Y	
082374	50-000693	421 COLORADO AVE		MODESTO	P	1928	PROJ. REVW.	HUD930603Q	06/11/93	6Y	
066668	50-000694	426 COLORADO AVE		MODESTO	U		PROJ. REVW.	HUD880513E	06/13/88	6Y	
065656	50-000695	429 COLORADO AVE	REHABILITATION	MODESTO	U		PROJ. REVW.	HUD890109E	02/07/89	6Y	
066758	50-000696	430 COLORADO AVE	HOUSING REHABILITATION	MODESTO	U		PROJ. REVW.	HUD880629E	07/26/88	6Y	
080877	50-000697	438 COLORADO AVE		MODESTO	U	1930	PROJ. REVW.	HUD930311S	04/21/93		
065808	50-000698	442 COLORADO AVE	HOUSING REHABILITATION	MODESTO	U		PROJ. REVW.	HUD890417G	05/18/89	6Y	
080876	50-000699	446 COLORADO AVE		MODESTO	U	1923	PROJ. REVW.	HUD930311R	04/21/93	6Y	
097489	50-000700	634 CONEJO AVE		MODESTO	P	1940	PROJ. REVW.	HUD950801A	09/28/95	6Y	
101965	50-000701	720 CONEJO AVE		MODESTO	P	1942	PROJ. REVW.	HUD960328K	04/25/96	6Y	
096289	50-000702	1741 CONNIE WY		MODESTO	P	1941	PROJ. REVW.	HUD950505A	06/20/95	6Y	
188105		1749 CONNIE WY		MODESTO	P	1946	PROJ. REVW.	HUD120213G	03/05/12	6Y	
183007		309 COVENA AVE		MODESTO	P	1946	PROJ. REVW.	HUD100617G	07/07/10	6Y	
169933		1113 CRIMSON CT		MODESTO	P	1954	PROJ. REVW.	HUD080227A	02/28/08	6Y	
092896	50-000703	2301 CROMMELIN AVE		MODESTO	P	1941	PROJ. REVW.	HUD940829A	11/16/94	6Y	
150626		2319 CROMMELIN AVE		MODESTO	P	1950	HIST. RES.	DOE-50-04-0020-0000	03/23/04	6Y	
				MODESTO	P		PROJ. REVW.	HUD040226D	03/23/04	6Y	
096959	50-000704	1417 D ST		MODESTO	P	1925	PROJ. REVW.	HUD950616G	07/28/95	6Y	
173461		3724 DALE RD →	dem'd in 2013 or 2014	MODESTO	P	1922	PROJ. REVW.	HUD080905E	10/06/08	6Y	
183023		1028 DARTMOUTH AVE		MODESTO	P	1954	PROJ. REVW.	HUD100625F	07/19/10	6Y	
167220		11324 DEL MAR AVE		MODESTO	P	1947	PROJ. REVW.	HUD070801C	08/06/07	6Y	
129255	50-001856	1155 DEL MAR CT		MODESTO	P	1949	HIST. RES.	DOE-50-01-0001-0000	10/17/01	6Y	
				MODESTO	P		PROJ. REVW.	HUD010913P	10/17/01	6Y	
177431		1309 DEL MONTE AVE		MODESTO	P	1947	PROJ. REVW.	HUD091020E	11/05/09	6Y	
146648		1412 DEL MONTE AVE		MODESTO	P	1947	HIST. RES.	DOE-50-04-0002-0000	05/06/04	6Y	
				MODESTO	P		PROJ. REVW.	HUD040414F	05/06/04	6Y	
155364		1417 DEL MONTE AVE		MODESTO	P	1947	PROJ. REVW.	HUD050808Y	08/22/05	6Y	
186017		1118 DEL VERDE AVE		MODESTO	P	1957	PROJ. REVW.	HUD110923B	10/17/11	6Y	
184050		1713 DOVER AVE		MODESTO	P	1948	PROJ. REVW.	HUD100927R	10/11/10	6Y	
057599	50-000705	133 DOWNEY AVE		MODESTO	P	1922	HIST. SURV.	5352-0027-0000		5S2	
057600	50-000706	137 DOWNEY AVE		MODESTO	P	1922	HIST. SURV.	5352-0028-0000		5S2	
170091		412 DOWNEY AVE		MODESTO	M	1920	PROJ. REVW.	HUD060605O	03/06/08	6Y	
170090		416 DOWNEY AVE		MODESTO	M	1920	PROJ. REVW.	HUD060605O	03/06/08	6Y	
186618		133 DOWNEY ST		MODESTO	P	1915	PROJ. REVW.	HUD100517D	06/15/10	6Y	
067462	50-000707	416 DOWNEY ST		MODESTO	M	0	PROJ. REVW.	HUD900508E	06/18/90	7J	
183063		1117 E FAIRMONT AVE		MODESTO	P	1954	PROJ. REVW.	HUD100728L	08/02/10	6Y	
066063	50-000708	119 E MORRIS AVE		MODESTO	U		PROJ. REVW.	HUD890727E	08/25/89	6Y	
057601	50-000709	129 E MORRIS AVE		MODESTO	P	1922	HIST. SURV.	5352-0029-0000		5S2	
057602	50-000710	136 E MORRIS AVE		MODESTO	P	1924	HIST. SURV.	5352-0030-0000		5S2	
057603	50-000711	140 E MORRIS AVE		MODESTO	P	1924	HIST. SURV.	5352-0031-0000		5S2	
177438		1148 E MORRIS AVE		MODESTO	P	1953	PROJ. REVW.	HUD091020R		6Y	
170811		321 E ST	FIRE STATION #34	MODESTO	M	1947	PROJ. REVW.	DHS070109A	02/14/07	6Y	
167959		602 EL CAMINO AVE		MODESTO	P	1948	PROJ. REVW.	HUD070904D	09/12/07	6Y	
066760	50-000712	717 EL TERINO AVE	HOUSING REHABILITATION	MODESTO	U		PROJ. REVW.	HUD880629G	07/26/88	6Y	
067230	50-000713	628 EL VISTA AVE		MODESTO	U		PROJ. REVW.	HUD900402F	04/26/90	6Y	



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PROPERTY-NUMBER	PRIMARY-#	STREET ADDRESS	NAMES	CITY.NAME	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
101641	50-000714	109 ELM ST		MODESTO	P	1920	PROJ.REVW.	HUD960412Z	04/16/96	6Y	
066990	50-000715	736 ELM ST	REHABILITATION RESI	MODESTO	U		PROJ.REVW.	HUD891018A	11/22/89	6Y	
160497		1912 ELMHURST DR		MODESTO	P	1954	PROJ.REVW.	HUD060203H	02/07/06	6Y	
057700	50-000716	ELMWOOD AVE		MODESTO	P	1911	HIST.SURV.	5352-0061-9999		5D2	
057712	50-000717	ELMWOOD AVE		MODESTO	P	1922	HIST.SURV.	5352-0067-9999		5D2	
057668	50-000718	107 ELMWOOD AVE		MODESTO	P	1915	HIST.SURV.	5352-0061-0001		5D2	
057669	50-000719	108 ELMWOOD AVE		MODESTO	P	1920	HIST.SURV.	5352-0061-0002		5D2	
057670	50-000720	111 ELMWOOD AVE		MODESTO	P	1912	HIST.SURV.	5352-0061-0003		5D2	
057671	50-000721	112 ELMWOOD AVE		MODESTO	P	1912	HIST.SURV.	5352-0061-0004		5D2	
057566	50-000722	115 ELMWOOD AVE		MODESTO	P	1940	HIST.SURV.	5352-0011-0000		5S2	
057672	50-000723	116 ELMWOOD AVE		MODESTO	P	1918	HIST.SURV.	5352-0061-0005		5D2	
057673	50-000724	120 ELMWOOD AVE		MODESTO	P	1934	HIST.SURV.	5352-0061-0006		5D2	
057674	50-000725	121 ELMWOOD AVE		MODESTO	P	1912	HIST.SURV.	5352-0061-0007		5D2	
057675	50-000726	123 ELMWOOD AVE		MODESTO	P	1914	HIST.SURV.	5352-0061-0008		5D2	
057676	50-000727	124 ELMWOOD AVE		MODESTO	P	1918	HIST.SURV.	5352-0061-0009		5D2	
057677	50-000728	127 ELMWOOD AVE		MODESTO	P	1919	HIST.SURV.	5352-0061-0010		5D2	
057678	50-000729	128 ELMWOOD AVE	S S LATZ HOME	MODESTO	P	1912	HIST.SURV.	5352-0061-0011		5D2	
057679	50-000730	129 ELMWOOD AVE	W H CAVILL HOME	MODESTO	P	1916	HIST.SURV.	5352-0061-0012		5D2	
057567	50-000731	201 ELMWOOD AVE		MODESTO	P	1931	HIST.SURV.	5352-0012-0000		5S2	
057680	50-000732	202 ELMWOOD AVE		MODESTO	P	1920	HIST.SURV.	5352-0061-0013		5D2	
057681	50-000733	203 ELMWOOD AVE		MODESTO	P	1928	HIST.SURV.	5352-0061-0014		5D2	
057682	50-000734	205 ELMWOOD AVE		MODESTO	P	1931	HIST.SURV.	5352-0061-0015		5D2	
057568	50-000735	207 ELMWOOD AVE		MODESTO	P	1927	HIST.SURV.	5352-0013-0000		5S2	
057683	50-000736	208 ELMWOOD AVE		MODESTO	P	1915	HIST.SURV.	5352-0061-0016		5D2	
057569	50-000737	211 ELMWOOD AVE		MODESTO	P	1929	HIST.SURV.	5352-0014-0000		5S2	
057684	50-000738	212 ELMWOOD AVE		MODESTO	P	1912	HIST.SURV.	5352-0061-0017		5D2	
057685	50-000739	214 ELMWOOD AVE		MODESTO	P	1912	HIST.SURV.	5352-0061-0018		5D2	
057686	50-000740	215 ELMWOOD AVE		MODESTO	P	1912	HIST.SURV.	5352-0061-0019		5D2	
057687	50-000741	216 ELMWOOD AVE		MODESTO	P	1913	HIST.SURV.	5352-0061-0020		5D2	
057688	50-000742	217 ELMWOOD AVE		MODESTO	P	1912	HIST.SURV.	5352-0061-0021		5D2	
057689	50-000743	218 ELMWOOD AVE		MODESTO	P	1918	HIST.SURV.	5352-0061-0022		5D2	
057690	50-000744	226 ELMWOOD AVE		MODESTO	P	1912	HIST.SURV.	5352-0061-0023		5D2	
057691	50-000745	229 ELMWOOD AVE	H J DOWNEY HOME	MODESTO	P	1912	HIST.SURV.	5352-0061-0024		5D2	
057692	50-000746	231 ELMWOOD AVE		MODESTO	P	1918	HIST.SURV.	5352-0061-0025		5D2	
057693	50-000747	302 ELMWOOD AVE		MODESTO	P	1912	HIST.SURV.	5352-0061-0026		5D2	
057701	50-000748	305 ELMWOOD AVE	FERLIN HOUSE	MODESTO	P	1914	HIST.SURV.	5352-0062-0000		5S2	
057694	50-000749	306 ELMWOOD AVE	H W WILBUR HOME	MODESTO	P	1911	HIST.SURV.	5352-0061-0027		5D2	
057695	50-000750	310 ELMWOOD AVE		MODESTO	P	1920	HIST.SURV.	5352-0061-0028		5D2	
057696	50-000751	314 ELMWOOD AVE		MODESTO	P	1915	HIST.SURV.	5352-0061-0029		5D2	
057697	50-000752	317 ELMWOOD AVE		MODESTO	P	1916	HIST.SURV.	5352-0061-0030		5D2	
057698	50-000753	318 ELMWOOD AVE		MODESTO	P	1939	HIST.SURV.	5352-0061-0031		5D2	
057699	50-000754	319 ELMWOOD AVE		MODESTO	P	1923	HIST.SURV.	5352-0061-0032		5D2	
057562	50-000755	402 ELMWOOD AVE		MODESTO	P	1922	HIST.SURV.	5352-0007-0000		7R	
057563	50-000756	405 ELMWOOD AVE		MODESTO	P	1929	HIST.SURV.	5352-0008-0000		7R	
057564	50-000757	406 ELMWOOD AVE		MODESTO	P	1937	HIST.SURV.	5352-0009-0000		7R	
057706	50-000758	410 ELMWOOD AVE		MODESTO	P	1937	HIST.SURV.	5352-0067-0001		5D2	
057707	50-000759	414 ELMWOOD AVE		MODESTO	P	1927	HIST.SURV.	5352-0067-0002		5D2	
057565	50-000760	415 ELMWOOD AVE		MODESTO	P	1925	HIST.SURV.	5352-0010-0000		7R	
057708	50-000761	417 ELMWOOD AVE		MODESTO	P	1931	HIST.SURV.	5352-0067-0003		5D2	
057710	50-000762	418 ELMWOOD AVE		MODESTO	P	1929	HIST.SURV.	5352-0067-0005		5D2	
057709	50-000763	422 ELMWOOD AVE		MODESTO	P	1937	HIST.SURV.	5352-0067-0004		5D2	
057711	50-000764	423 ELMWOOD AVE		MODESTO	P	1922	HIST.SURV.	5352-0067-0006		5D2	
057570	50-000740	215 ELMWOOD CT		MODESTO	P	1932	HIST.SURV.	5352-0015-0000		5S2	
057571	50-000743	218 ELMWOOD CT		MODESTO	P	1926	HIST.SURV.	5352-0016-0000		5S2	
175981		324 EMERSON AVE		MODESTO	P	1950	PROJ.REVW.	HUD090512A	06/02/09	6Y	
092894	50-000767	611 EMPIRE AVE		MODESTO	P	1938	PROJ.REVW.	HUD940901C	11/16/94	6Y	

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PROPERTY-NUMBER	PRIMARY-#	STREET ADDRESS	NAMES	CITY NAME	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
099958	50-000768	620 EMPIRE AVE		MODESTO	P	1930	PROJ. REVW.	HUD951208I	01/05/96	6Y	
097866	50-000769	1013 EMPIRE AVE		MODESTO	P	1944	PROJ. REVW.	HUD950928B	11/07/95	6Y	
094311	50-000770	1021 EMPIRE AVE		MODESTO	P	1944	PROJ. REVW.	HUD941230A	01/26/95	6Y	
167354		1035 FLORENCE AVE		MODESTO	P	1925	PROJ. REVW.	HUD070521V	05/25/07	6Y	
057604	50-000771	112 FLOTO WY	BESSIE EUBANKS HOME	MODESTO	P	1943	HIST. SURV.	5352-0032-0000		7R	
184595		1330 FORDHAM AVE		MODESTO	P		PROJ. REVW.	HUD100903G	09/23/10	6Y	
082339	50-000772	120 FRESNO AVE		MODESTO	P	1920	PROJ. REVW.	HUD930603C	06/11/93	6Y	
066065	50-000773	124 FRESNO AVE		MODESTO	P	1920	PROJ. REVW.	HUD930603mm	07/15/93	6Y	
							PROJ. REVW.	HUD890727G	08/25/89	6Y	
082341	50-000774	129 FRESNO AVE		MODESTO	P	1925	PROJ. REVW.	HUD930603F	06/11/93	6Y	
082355	50-000775	136 FRESNO AVE		MODESTO	P	1921	PROJ. REVW.	HUD930603W	06/11/93	6Y	
089560	50-000776	142 FRESNO AVE		MODESTO	P	1921	PROJ. REVW.	HUD940927L	11/16/94	6Y	
							PROJ. REVW.	HUD940506C	06/09/94	6Y	
082353	50-000777	205 FRESNO AVE		MODESTO	P	1915	PROJ. REVW.	HUD930603U	06/11/93	6Y	
066429	50-000778	208 FRESNO AVE		MODESTO	U		PROJ. REVW.	HUD871222A	01/21/88	6Y	
067070	50-000779	214 FRESNO AVE		MODESTO	U		PROJ. REVW.	HUD900102B	02/01/90	6Y	
066996	50-000780	215 FRESNO AVE		MODESTO	U		PROJ. REVW.	HUD891018G	11/22/89	6Y	
067231	50-000781	220 FRESNO AVE		MODESTO	U		PROJ. REVW.	HUD900402G	04/16/90	6Y	
067232	50-000782	221 FRESNO AVE		MODESTO	U		PROJ. REVW.	HUD900402H	04/16/90	6Y	
148441		700 GLENN AVE		MODESTO	P	1947	HIST. RES.	DOE-50-04-0009-0000	05/11/04	6Y	
							PROJ. REVW.	FHWA040414A	05/11/04	6Y	
057605	50-000783	115 GRANT ST		MODESTO	P	1919	HIST. SURV.	5352-0033-0000		5S2	
057606	50-000784	117 GRANT ST		MODESTO	P	1929	HIST. SURV.	5352-0034-0000		5S2	
057607	50-000785	119 GRANT ST		MODESTO	P	1929	HIST. SURV.	5352-0035-0000		5S2	
057608	50-000786	131 GRANT ST		MODESTO	P	1927	HIST. SURV.	5352-0036-0000		5S2	
057609	50-000787	132 GRANT ST		MODESTO	P	1929	HIST. SURV.	5352-0037-0000		5S2	
057610	50-000788	138 GRANT ST		MODESTO	P	1927	HIST. SURV.	5352-0038-0000		5S2	
127869	50-001799	GRAYSON RD	GRAYSON RIVER RANCH LEVEE	MODESTO	P	1930	HIST. RES.	DOE-50-00-0018-0000	08/15/00	6Y	
							PROJ. REVW.	NRCS000721A	08/15/00	6Y	
170093		1310 GREENWOOD DR		MODESTO	P	1953	PROJ. REVW.	HUD080305C	03/06/08	6Y	
057895	50-000789	102 HACKBERRY AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0036		5D2	
057896	50-000790	106 HACKBERRY AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0037		5D2	
057897	50-000791	107 HACKBERRY AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0038		5D2	
057898	50-000792	111 HACKBERRY AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0039		5D2	
057899	50-000793	112 HACKBERRY AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0040		5D2	
057900	50-000794	114 HACKBERRY AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0041		5D2	
057901	50-000795	115 HACKBERRY AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0042		5D2	
057902	50-000796	118 HACKBERRY AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0043		5D2	
057903	50-000797	119 HACKBERRY AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0044		5D2	
057904	50-000798	122 HACKBERRY AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0045		5D2	
057905	50-000799	125 HACKBERRY AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0046		5D2	
057906	50-000800	126 HACKBERRY AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0047		5D2	
057907	50-000801	130 HACKBERRY AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0048		5D2	
057908	50-000802	132 HACKBERRY AVE		MODESTO	P	1924	HIST. SURV.	5352-0099-0049		5D2	
057909	50-000803	135 HACKBERRY AVE		MODESTO	P	1924	HIST. SURV.	5352-0099-0050		5D2	
057910	50-000804	202 HACKBERRY AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0051		5D2	
057911	50-000805	203 HACKBERRY AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0052		5D2	
057912	50-000806	205 HACKBERRY AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0053		5D2	
057913	50-000807	206 HACKBERRY AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0054		5D2	
057914	50-000808	209 HACKBERRY AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0055		5D2	
057915	50-000809	210 HACKBERRY AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0056		5D2	
057916	50-000810	215 HACKBERRY AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0057		5D2	
057917	50-000811	216 HACKBERRY AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0058		5D2	
057918	50-000812	219 HACKBERRY AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0059		5D2	
057919	50-000813	220 HACKBERRY AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0060		5D2	
057953	50-000814	223 HACKBERRY AVE		MODESTO	P	1917	HIST. SURV.	5352-0100-0012		5D2	

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PROPERTY-NUMBER	PRIMARY-#	STREET ADDRESS	NAMES	CITY NAME	OWN	YR-C	OHP-PROG.	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
057920	50-000815	228 HACKBERRY AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0061		5D2	
057921	50-000816	229 HACKBERRY AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0062		5D2	
057954	50-000817	301 HACKBERRY AVE		MODESTO	P	1917	HIST.SURV.	5352-0100-0013		5D2	
057922	50-000818	302 HACKBERRY AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0063		5D2	
057923	50-000819	305 HACKBERRY AVE	REHABILITATION OF HOUSE	MODESTO	P	1924	PROJ.REVW.	HUD871109J	12/15/87	6Y	
								5352-0099-0064		5D2	
057924	50-000820	306 HACKBERRY AVE		MODESTO	P	1924	HIST.SURV.	5352-0099-0065		5D2	
057925	50-000821	309 HACKBERRY AVE		MODESTO	P	1924	HIST.SURV.	5352-0099-0066		5D2	
057926	50-000822	310 HACKBERRY AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0067		5D2	
057927	50-000823	317 HACKBERRY AVE		MODESTO	P	1925	HIST.SURV.	5352-0099-0068		5D2	
185320		411 HACKBERRY AVE		MODESTO	P	1920	PROJ.REVW.	HUD110826B	09/27/11	6Y	
150931		2333 HADDON AVE		MODESTO	P	1951	HIST.RES.	DOE-50-04-0022-0000	07/23/04	6Y	
								PROJ.REVW.	HUD040630B	07/23/04	6Y
066669	50-000824	323 HIGH ST		MODESTO	U			PROJ.REVW.	HUD880513F	06/13/88	6Y
161944	50-1959	417 HOGUE DR	WALTON, DR. ROBERT AND MARY, HOUSE	MODESTO	P	1961	HIST.RES.	NPS-06001133-0000	12/14/06	1S	C
								NAT.REG.	50-0016	08/04/06	3S
164565		417 HOGUE DR	UNGATED ENTRY WALLS/ WALTON, DR RO	MODESTO	P		HIST.RES.	NPS-06001133-0001	12/14/06	6X	
164566		417 HOGUE DR	SWIMMING POOL/ WALTON, DR ROBERT A	MODESTO	P	1966	HIST.RES.	NPS-06001133-0002	12/14/06	6X	
066756	50-000825	213 I ST	HOUSING REHABILITATION	MODESTO	U			PROJ.REVW.	HUD880629C	07/26/88	6Y
057765	50-000826	1402 I ST	McHENRY LIBRARY, McHENRY MUSEUM	MODESTO	M	1912	HIST.SURV.	5352-0090-0000		3S	
057766	50-000827	1418 I ST	FAY APARTMENTS, MILLER APARTMENTS	MODESTO	P	1912	HIST.SURV.	5352-0091-0000		5S2	
057767	50-000828	1605 I ST	SHANNON FUNERAL HOME, WHITEHURST S	MODESTO	P	1936	HIST.SURV.	5352-0092-0000		7N	
057768	50-000829	1630 I ST	THE McMALLON PLACE, LAW OFFICES OF	MODESTO	P	1926	HIST.SURV.	5352-0093-0000		7R	
073072	50-000830	1009 J ST	HOTEL HUGHSON	MODESTO	P	1914	NAT.REG.	50-0003	10/22/86	7J	
087498	50-000062	1023 J ST	HOTEL COVELL	MODESTO	P	1924	HIST.RES.	NPS-94001501-0000	12/29/94	1S	C
								NAT.REG.	50-0009	12/29/94	1S
								TAX.CERT.	537.9-50-0002	02/22/94	
057769	50-000831	1500 J ST	MASONIC TEMPLE, MARTIN BUILDING	MODESTO	P	1917	HIST.SURV.	5352-0094-0000		5S2	
057770	50-000832	1608 J ST	PIGGLY WIGGLE MARKET / COVERLY'S,	MODESTO	P	1929	HIST.SURV.	5352-0095-0000		5S2	
057611	50-000833	205 JOHNSON ST		MODESTO	P	1919	HIST.SURV.	5352-0039-0000		5S2	
185234		405 JOHNSON ST		MODESTO	P	1923	PROJ.REVW.	HUD100607T	06/28/10	6Y	
057612	50-000834	415 JOHNSON ST		MODESTO	P	1924	HIST.SURV.	5352-0040-0000		5S2	
057613	50-000835	527 JOHNSON ST		MODESTO	P	1931	HIST.SURV.	5352-0041-0000		5S2	
057614	50-000836	111 JONES ST		MODESTO	P	1919	HIST.SURV.	5352-0042-0000		5S2	
057615	50-000837	121 JONES ST		MODESTO	P	1922	HIST.SURV.	5352-0043-0000		5S2	
057616	50-000838	129 JONES ST		MODESTO	P	1922	HIST.SURV.	5352-0044-0000		5S2	
057617	50-000839	134 JONES ST		MODESTO	P	1941	HIST.SURV.	5352-0045-0000		5S2	
057618	50-000840	138 JONES ST		MODESTO	P	1942	HIST.SURV.	5352-0046-0000		5S2	
057771	50-000841	1518 K ST	MUSCIO HOME, SCHMITZ HOME	MODESTO	P	1939	HIST.SURV.	5352-0096-0000		7N	
079378	50-000517	301 KANSAS AVE	COLOR MASTERS AUTO PAINTING	MODESTO	P	1935	HIST.RES.	DOE-50-92-0003-0000	11/13/92	6Y	
								PROJ.REVW.	FHWA920923B	11/13/92	6Y
079377	50-000516	315 KANSAS AVE	CHEMICAL/STEAM CLEANER	MODESTO	P		HIST.RES.	DOE-50-92-0002-0000	11/13/92	6Y	
								PROJ.REVW.	FHWA920923B	11/13/92	6Y
079375	50-000515	415 KANSAS AVE	KANSAS/BEECH STREET INDUSTRIAL ARE	MODESTO	P	1960	HIST.RES.	DOE-50-92-0001-9999	11/13/92	6Y	
								PROJ.REVW.	FHWA920923B	11/13/92	6Y
066268	50-000842	1001 KANSAS AVE	RESIDENCE	MODESTO	U			PROJ.REVW.	HUD870930C	10/28/87	6Y
065888	50-000843	131 KELLY ST	HOUSING REHABILITATION	MODESTO	U			PROJ.REVW.	HUD890516L	06/13/89	6Y
097450	50-000844	628 KERR AVE		MODESTO	P	1925	PROJ.REVW.	HUD950801B	09/28/95	6Y	
183139		628 KERR AVE		MODESTO	P	1948	PROJ.REVW.	HUD100629P	07/23/10	6Y	
183028		802 KERR AVE		MODESTO	P	1948	PROJ.REVW.	HUD100625K	07/19/10	6Y	
101324	50-000845	811 KERR AVE		MODESTO	P	1946	PROJ.REVW.	HUD960213D	03/18/96	6Y	
067233	50-000846	721 KERR ST		MODESTO	U			PROJ.REVW.	HUD900402I	04/16/90	6Y
140429	50-1925	KIERNAN AVE	LATERAL OF THE MODESTO IRRIGATION	MODESTO	P	1935	HIST.RES.	DOE-50-00-0040-0000	11/16/00	6Y	
								PROJ.REVW.	FHWA001020A	11/16/00	6Y

*S Chappell Ditch, Salida 7.5'*

PROPERTY-NUMBER	PRIMARY-#	STREET ADDRESS.....	NAMES.....	CITY NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
140438		KIERNAN AVE	UNION PACIFIC RAILROAD TRACK	MODESTO	P	1913	HIST.RES.	DOE-50-00-0049-0000	11/16/00	6Y	
140470		501 KIERNAN AVE		MODESTO	P	1945	PROJ.REVW.	FHWA001020A	11/16/00	6Y	
140440		513 KIERNAN AVE		MODESTO	P	1910	HIST.RES.	DOE-50-00-0053-0000	11/16/00	6Y	
140439		625 KIERNAN AVE		MODESTO	P		PROJ.REVW.	FHWA001020A	11/16/00	6Y	
140437		824 KIERNAN AVE		MODESTO	P		HIST.RES.	DOE-50-00-0051-0000	11/16/00	6Y	
140436	-2026	907 KIERNAN AVE	demolished	MODESTO	P	1948	PROJ.REVW.	FHWA001020A	11/16/00	6Y	
140433		1348 KIERNAN AVE		MODESTO	P	1940	HIST.RES.	DOE-50-00-0050-0000	11/16/00	6Y	
140432		1420 KIERNAN AVE		MODESTO	P	1940	PROJ.REVW.	FHWA001020A	11/16/00	6Y	
140431		1443 KIERNAN AVE		MODESTO	P	1905	HIST.RES.	DOE-50-00-0044-0000	11/16/00	6Y	
140430		1540 KIERNAN AVE		MODESTO	P	1915	PROJ.REVW.	FHWA001020A	11/16/00	6Y	
140428		1601 KIERNAN AVE		MODESTO	P	1910	HIST.RES.	DOE-50-00-0043-0000	11/16/00	6Y	
140427		1643 KIERNAN AVE		MODESTO	P	1910	PROJ.REVW.	FHWA001020A	11/16/00	6Y	
140426		1737 KIERNAN AVE		MODESTO	P	1910	HIST.RES.	DOE-50-00-0042-0000	11/16/00	6Y	
140469		1931 KIERNAN AVE	STANISLAUS UNION SCHOOL	MODESTO	D	1950	PROJ.REVW.	FHWA001020A	11/16/00	6Y	
140424		2206 KIERNAN AVE		MODESTO	P	1950	HIST.RES.	DOE-50-00-0039-0000	11/16/00	6Y	
140423		2224 KIERNAN AVE		MODESTO	P	1912	PROJ.REVW.	FHWA001020A	11/16/00	6Y	
140422		2248 KIERNAN AVE		MODESTO	P	1930	HIST.RES.	DOE-50-00-0036-0000	11/16/00	6Y	
140421		2349 KIERNAN AVE		MODESTO	P	1930	PROJ.REVW.	FHWA001020A	11/16/00	6Y	
140419		2706 KIERNAN AVE		MODESTO	P	1925	HIST.RES.	DOE-50-00-0034-0000	11/16/00	6Y	
140417		2819 KIERNAN AVE		MODESTO	P	1925	PROJ.REVW.	FHWA001020A	11/16/00	6Y	
140416		2866 KIERNAN AVE		MODESTO	P	1932	HIST.RES.	DOE-50-00-0033-0000	11/16/00	6Y	
140414		3237 KIERNAN AVE		MODESTO	P	1911	PROJ.REVW.	FHWA001020A	11/16/00	6Y	
140415		3243 KIERNAN AVE		MODESTO	P	1911	HIST.RES.	DOE-50-00-0032-0000	11/16/00	6Y	
140413		3342 KIERNAN AVE		MODESTO	P	1911	PROJ.REVW.	FHWA001020A	11/16/00	6Y	
140412		3406 KIERNAN AVE		MODESTO	P	1938	HIST.RES.	DOE-50-00-0031-0000	11/16/00	6Y	
140411		3513 KIERNAN AVE		MODESTO	P	1915	PROJ.REVW.	FHWA001020A	11/16/00	6Y	
140410		3612 KIERNAN AVE		MODESTO	P	1915	HIST.RES.	DOE-50-00-0028-0000	11/16/00	6Y	
140409		3812 KIERNAN AVE		MODESTO	P	1915	PROJ.REVW.	FHWA001020A	11/16/00	6Y	
				MODESTO	P	1920	HIST.RES.	DOE-50-00-0029-0000	11/16/00	6Y	
				MODESTO	P	1920	PROJ.REVW.	FHWA001020A	11/16/00	6Y	
				MODESTO	P	1926	HIST.RES.	DOE-50-00-0027-0000	11/16/00	6Y	
				MODESTO	P		PROJ.REVW.	FHWA001020A	11/16/00	6Y	
				MODESTO	P		HIST.RES.	DOE-50-00-0026-0000	11/16/00	6Y	
				MODESTO	P		PROJ.REVW.	FHWA001020A	11/16/00	6Y	
				MODESTO	P		HIST.RES.	DOE-50-00-0025-0000	11/16/00	6Y	
				MODESTO	P		PROJ.REVW.	FHWA001020A	11/16/00	6Y	
				MODESTO	P		HIST.RES.	DOE-50-00-0024-0000	11/16/00	6Y	
				MODESTO	P		PROJ.REVW.	FHWA001020A	11/16/00	6Y	
				MODESTO	P		HIST.RES.	DOE-50-00-0023-0000	11/16/00	6Y	

OFFICE OF HISTORIC PRESERVATION * * * Directory of Properties in the Historic Property Data File for STANISLAUS County.										Page 13	03-20-14
PROPERTY-NUMBER	PRIMARY-#	STREET ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
140378		4101 KIERNAN AVE		MODESTO	P		PROJ. REVW.	FHWA001020A	11/16/00	6Y	
							HIST. RES.	DOE-50-00-0022-0000	11/16/00	6Y	
140377		4107 KIERNAN AVE		MODESTO	P		PROJ. REVW.	FHWA001020A	11/16/00	6Y	
							HIST. RES.	DOE-50-00-0021-0000	11/16/00	6Y	
140376		4124 KIERNAN AVE		MODESTO	P	1952	PROJ. REVW.	FHWA001020A	11/16/00	6Y	
							HIST. RES.	DOE-50-00-0020-0000	11/16/00	6Y	
140375		4337 KIERNAN AVE		MODESTO	P	1912	PROJ. REVW.	FHWA001020A	11/16/00	6Y	
							HIST. RES.	DOE-50-00-0019-0000	11/16/00	6Y	
132705		141 KIMBLE ST		MODESTO	P	1920	PROJ. REVW.	FHWA001020A	11/16/00	6Y	
							HIST. RES.	DOE-50-02-0003-0000	07/31/02	6Y	
137743		1519 LARKIN AVE		MODESTO	P	1940	PROJ. REVW.	HUD020718Q	07/31/02	6Y	
							HIST. RES.	DOE-50-03-0006-0000	02/11/03	6Y	
065658	50-000847	1626 LARKIN ST	REHABILITATION	MODESTO	U		PROJ. REVW.	HUD030211A	02/11/03	6Y	
148440		1830 LAS VEGAS ST		MODESTO	P	1948	PROJ. REVW.	HUD890109G	02/07/89	6Y	
							HIST. RES.	DOE-50-04-0008-0000	05/11/04	6Y	
137745		419 LAUREL AVE		MODESTO	P	1930	PROJ. REVW.	FHWA040414A	05/11/04	6Y	
							HIST. RES.	DOE-50-03-0007-0000	02/18/03	6Y	
066991	50-000848	428 LAUREL ST		MODESTO	U		PROJ. REVW.	HUD030206H	02/18/03	6Y	
057619	50-000849	114 LEE ST		MODESTO	P	1919	PROJ. REVW.	HUD891018B	11/22/89	6Y	
057620	50-000850	117 LEE ST		MODESTO	P	1911	HIST. SURV.	5352-0047-0000		5S2	
057621	50-000851	121 LEE ST		MODESTO	P	1911	HIST. SURV.	5352-0048-0000		5S2	
057622	50-000852	125 LEE ST		MODESTO	P	1911	HIST. SURV.	5352-0049-0000		5S2	
057623	50-000853	126 LEE ST	PEDERSON HOME	MODESTO	P	1942	HIST. SURV.	5352-0050-0000		7R	
057624	50-000854	129 LEE ST		MODESTO	P	1942	HIST. SURV.	5352-0051-0000		7R	
057625	50-000855	130 LEE ST		MODESTO	P	1941	HIST. SURV.	5352-0052-0000		7R	
057626	50-000856	134 LEE ST		MODESTO	P	1919	HIST. SURV.	5352-0053-0000		5S2	
057627	50-000857	135 LEE ST		MODESTO	P	1922	HIST. SURV.	5352-0054-0000		5S2	
057628	50-000858	144 LEE ST		MODESTO	P	1911	HIST. SURV.	5352-0055-0000		5S2	
082385	50-000859	203 LEON AVE		MODESTO	P	1920	HIST. SURV.	5352-0056-0000		5S2	
066994	50-000860	207 LEON AVE		MODESTO	U		PROJ. REVW.	HUD930603ff	06/11/93	6Y	
082380	50-000861	208 LEON AVE		MODESTO	P	1922	PROJ. REVW.	HUD891018E	11/22/89	6Y	
066999	50-000862	223 LEON AVE		MODESTO	U		PROJ. REVW.	HUD930603x	06/11/93	6Y	
080868	50-000863	317 LEON AVE		MODESTO	U	1925	PROJ. REVW.	HUD891018J	11/22/89	6Y	
082379	50-000864	319 LEON AVE		MODESTO	P	1918	PROJ. REVW.	HUD9303110	04/21/93	6Y	
082367	50-000865	331 LEON AVE		MODESTO	P	1918	PROJ. REVW.	HUD930603w	06/11/93	6Y	
082362	50-000866	337 LEON AVE		MODESTO	P	1930	PROJ. REVW.	HUD930603j	06/11/93	6Y	
098684	50-000867	345 LEON AVE		MODESTO	P	1920	PROJ. REVW.	HUD930603d	06/11/93	6Y	
065882	50-000868	409 LEON AVE	HOUSING REHABILITATION	MODESTO	P	1922	PROJ. REVW.	HUD951107A	12/14/95	6Y	
080865	50-000869	410 LEON AVE		MODESTO	U		PROJ. REVW.	HUD890516F	06/13/89	6Y	
080861	50-000870	413 LEON AVE		MODESTO	U	1922	PROJ. REVW.	HUD930311N	04/21/93	6Y	
080860	50-000871	417 LEON AVE		MODESTO	U	1922	PROJ. REVW.	HUD930311M	04/21/93	6Y	
183251		422 LEON AVE		MODESTO	P	1922	PROJ. REVW.	HUD930311L	04/21/93	6Y	
080869	50-000872	430 LEON AVE		MODESTO	P	1955	PROJ. REVW.	HUD100630H	07/21/10	6Y	
065883	50-000873	443 LEON AVE	HOUSING REHABILITATION	MODESTO	U	1927	PROJ. REVW.	HUD930311P	04/21/93	6Y	
148447		3350 LESTER RD	GATEWAY COMMUNITY CHURCH	MODESTO	P	1950	PROJ. REVW.	HUD890516G	06/13/89	6Y	
							HIST. RES.	DOE-50-04-0013-0000	05/11/04	6Y	
148446		3440 LESTER RD	GATEWAY COMMUNITY CHURCH PARSONAGE	MODESTO	P	1930	PROJ. REVW.	FHWA040414A	05/11/04	6Y	
							HIST. RES.	DOE-50-04-0012-0000	05/11/04	6Y	
148444		3448 LESTER RD		MODESTO	P	1946	PROJ. REVW.	FHWA040414A	05/11/04	6Y	
							HIST. RES.	DOE-50-04-0011-0000	05/11/04	6Y	
148442		3460 LESTER RD		MODESTO	P		PROJ. REVW.	FHWA040414A	05/11/04	6Y	
							HIST. RES.	DOE-50-04-0010-0000	05/11/04	6Y	
176957		209 LOCUST ST		MODESTO	P	1960	PROJ. REVW.	FHWA040414A	05/11/04	6Y	
066424	50-000874	306 LOCUST ST	RESIDENTIAL REHABILITATION	MODESTO	U		PROJ. REVW.	HUD090930A	10/23/09	6Y	
177546		321 LOCUST ST		MODESTO	P	1921	PROJ. REVW.	HUD871221E	01/21/88	6Y	
							PROJ. REVW.	HUD091028D	11/19/09	6Y	

PROPERTY-NUMBER	PRIMARY-#	STREET ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
057717	50-000875	LOTTIE AVE		MODESTO	P	1927	HIST.SURV.	5352-0068-9999			5D2
057713	50-000876	508 LOTTIE AVE		MODESTO	P	1929	HIST.SURV.	5352-0068-0001			5D2
057714	50-000877	514 LOTTIE AVE		MODESTO	P	1927	HIST.SURV.	5352-0068-0002			5D2
057715	50-000878	518 LOTTIE AVE		MODESTO	P	1927	HIST.SURV.	5352-0068-0003			5D2
057716	50-000881	522 LOTTIE AVE		MODESTO	P	1929	HIST.SURV.	5352-0068-0004			5D2
082359	50-000880	119 MADERA AVE		MODESTO	P	1925	PROJ.REVW.	HUD930603a	06/11/93	6Y	
067436	50-000881	122 MADERA AVE	122	MODESTO	P	0	PROJ.REVW.	HUD900508C	06/11/90	6Y	
065622	50-000882	127 MADERA AVE		MODESTO	U		PROJ.REVW.	HUD881209L	01/04/89	6Y	
080887	50-000883	132 MADERA AVE		MODESTO	U	1925	PROJ.REVW.	HUD930311e	04/21/93	6Y	
082370	50-000884	134 MADERA AVE		MODESTO	P	1921	PROJ.REVW.	HUD930603m	06/11/93	6Y	
080886	50-000885	138 MADERA AVE		MODESTO	U	1920	PROJ.REVW.	HUD930311d	04/21/93	6Y	
090665	50-000885	138 MADERA AVE		MODESTO	P	1920	PROJ.REVW.	HUD940701J	08/11/94	6Y	
080888	50-000887	142 MADERA AVE		MODESTO	U	1920	PROJ.REVW.	HUD930311f	04/21/93	6Y	
080885	50-000888	206 MADERA AVE		MODESTO	U	1921	PROJ.REVW.	HUD930311c	04/21/93	6Y	
080884	50-000889	210 MADERA AVE		MODESTO	U	1925	PROJ.REVW.	HUD930311b	04/21/93	6Y	
080883	50-000890	215 MADERA AVE		MODESTO	U	1939	PROJ.REVW.	HUD930311a	04/21/93	6Y	
066997	50-000891	222 MADERA AVE		MODESTO	U		PROJ.REVW.	HUD891018H	11/22/89	6Y	
057772	50-000892	MADONIA AVE	<del>GRANGE COMPANY</del> , GRANGE COMPANY	MODESTO	P	1939	HIST.SURV.	5352-0097-0000		7N	
057667	50-000893	MAGNOLIA AVE		MODESTO	P	1911	HIST.SURV.	5352-0060-9999		5D2	
057744	50-000894	MAGNOLIA AVE		MODESTO	P	1918	HIST.SURV.	5352-0069-9999		5D2	
057641	50-000895	102 MAGNOLIA AVE		MODESTO	P	1917	HIST.SURV.	5352-0060-0001		5D2	
057642	50-000896	112 MAGNOLIA AVE		MODESTO	P	1912	HIST.SURV.	5352-0060-0002		5D2	
057702	50-000897	115 MAGNOLIA AVE	HAWKE CASTLE	MODESTO	P	1929	HIST.SURV.	5352-0063-0000		3S	
057643	50-000898	118 MAGNOLIA AVE		MODESTO	P	1913	HIST.SURV.	5352-0060-0003		5D2	
057644	50-000899	122 MAGNOLIA AVE		MODESTO	P	1918	HIST.SURV.	5352-0060-0004		5D2	
057645	50-000900	125 MAGNOLIA AVE		MODESTO	P	1918	HIST.SURV.	5352-0060-0005		5D2	
057646	50-000901	128 MAGNOLIA AVE		MODESTO	P	1912	HIST.SURV.	5352-0060-0006		5D2	
057647	50-000902	134 MAGNOLIA AVE		MODESTO	P	1915	HIST.SURV.	5352-0060-0007		5D2	
057648	50-000903	200 MAGNOLIA AVE		MODESTO	P	1912	HIST.SURV.	5352-0060-0008		5D2	
057649	50-000904	203 MAGNOLIA AVE	C O LEE HOME	MODESTO	P	1913	HIST.SURV.	5352-0060-0009		5D2	
057650	50-000905	205 MAGNOLIA AVE	GARRISON HOME	MODESTO	P	1912	HIST.SURV.	5352-0060-0010		5D2	
057651	50-000906	212 MAGNOLIA AVE		MODESTO	P	1913	HIST.SURV.	5352-0060-0011		5D2	
057652	50-000907	213 MAGNOLIA AVE	H P BOOTHE HOME	MODESTO	P	1930	HIST.SURV.	5352-0060-0012		5D2	
057653	50-000908	214 MAGNOLIA AVE	DR GOULD HOME	MODESTO	P	1918	HIST.SURV.	5352-0060-0013		5D2	
057654	50-000909	217 MAGNOLIA AVE		MODESTO	P	1918	HIST.SURV.	5352-0060-0014		5D2	
057655	50-000910	218 MAGNOLIA AVE		MODESTO	P	1913	HIST.SURV.	5352-0060-0015		5D2	
057656	50-000911	222 MAGNOLIA AVE		MODESTO	P	1918	HIST.SURV.	5352-0060-0016		5D2	
057657	50-000912	224 MAGNOLIA AVE		MODESTO	P	1915	HIST.SURV.	5352-0060-0017		5D2	
057658	50-000913	225 MAGNOLIA AVE	L M MORRIS HOME	MODESTO	P	1920	HIST.SURV.	5352-0060-0018		5D2	
057659	50-000914	231 MAGNOLIA AVE	DR REAMER HOME	MODESTO	P	1920	HIST.SURV.	5352-0060-0019		5D2	
057660	50-000915	301 MAGNOLIA AVE		MODESTO	P	1918	HIST.SURV.	5352-0060-0020		5D2	
057661	50-000916	302 MAGNOLIA AVE		MODESTO	P	1912	HIST.SURV.	5352-0060-0021		5D2	
057662	50-000917	305 MAGNOLIA AVE		MODESTO	P	1912	HIST.SURV.	5352-0060-0022		5D2	
057663	50-000918	309 MAGNOLIA AVE	W G BROWN HOME	MODESTO	P	1923	HIST.SURV.	5352-0060-0023		5D2	
057664	50-000919	310 MAGNOLIA AVE	E H ZION HOME	MODESTO	P	1914	HIST.SURV.	5352-0060-0024		5D2	
057665	50-000920	314 MAGNOLIA AVE		MODESTO	P	1912	HIST.SURV.	5352-0060-0025		5D2	
057666	50-000921	318 MAGNOLIA AVE		MODESTO	P	1912	HIST.SURV.	5352-0060-0026		5D2	
057572	50-000922	409 MAGNOLIA AVE		MODESTO	P	1924	HIST.SURV.	5352-0017-0000		7R	
057718	50-000923	410 MAGNOLIA AVE		MODESTO	P	1921	HIST.SURV.	5352-0069-0001		5D2	
057719	50-000924	412 MAGNOLIA AVE		MODESTO	P	1919	HIST.SURV.	5352-0069-0002		5D2	
057573	50-000925	417 MAGNOLIA AVE		MODESTO	P	1926	HIST.SURV.	5352-0018-0000		7R	
057720	50-000926	421 MAGNOLIA AVE		MODESTO	P	1922	HIST.SURV.	5352-0069-0003		5D2	
057721	50-000927	512 MAGNOLIA AVE		MODESTO	P	1922	HIST.SURV.	5352-0069-0004		5D2	
057722	50-000928	515 MAGNOLIA AVE		MODESTO	P	1924	HIST.SURV.	5352-0069-0005		5D2	
057723	50-000929	522 MAGNOLIA AVE		MODESTO	P	1922	HIST.SURV.	5352-0069-0006		5D2	
057724	50-000930	530 MAGNOLIA AVE		MODESTO	P	1919	HIST.SURV.	5352-0069-0007		5D2	

PROPERTY-NUMBER	PRIMARY-#	STREET-ADDRESS	NAMES	CITY-NAME	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
098772	50-000931	217 MAPLE ST		MODESTO	P	1941	PROJ.REVW.	HUD951211Z	12/14/95	6Y	
093934	50-000932	302 MAPLE ST		MODESTO	P	1928	PROJ.REVW.	HUD941208E	12/27/94	6Y	
066993	50-000933	321 MAPLE ST		MODESTO	U		PROJ.REVW.	HUD891018D	11/22/89	6Y	
149649		416 MAPLE ST		MODESTO	P	1946	HIST.RES.	DOE-50-04-0014-0000	12/03/04	6Y	
							PROJ.REVW.	HUD041012C	12/03/04	6Y	
183089		608 MAZE BLVD		MODESTO	P	1925	PROJ.REVW.	HUD100701D	07/21/10	6Y	
067435	50-000934	121 MAZE CT		MODESTO	P	0	PROJ.REVW.	HUD900508A	06/11/90	6Y	
057574	50-000935	425 MCHENRY AVE	THE IMAGE MAKER	MODESTO	P	1917	HIST.SURV.	5352-0019-0000		7R	
057629	50-000936	520 MCHENRY AVE		MODESTO	P	1926	HIST.SURV.	5352-0057-0000		5S2	
057575	50-000937	521 MCHENRY AVE	CAFE DECANDENCE	MODESTO	P	1919	HIST.SURV.	5352-0020-0000		7R	
080882	50-000938	116 MERCED AVE		MODESTO	U	1920	PROJ.REVW.	HUD930311Z	04/21/93	6Y	
080881	50-000939	123 MERCED AVE		MODESTO	U	1925	PROJ.REVW.	HUD930311Y	04/21/93	6Y	
082357	50-000940	124 MERCED AVE		MODESTO	P	1925	PROJ.REVW.	HUD930603Y	06/11/93	6Y	
082351	50-000941	129 MERCED AVE		MODESTO	P	1942	PROJ.REVW.	HUD930603S	06/11/93	6Y	
080880	50-000942	142 MERCED AVE		MODESTO	U	1920	PROJ.REVW.	HUD930311X	04/21/93	6Y	
080891	50-000943	219 MERCED AVE		MODESTO	P	1939	HIST.RES.	DOE-50-04-0003-0000	01/13/04	6Y	
							PROJ.REVW.	HUD031215C	01/13/04	6Y	
							PROJ.REVW.	HUD930311J	04/21/93	6Y	
057598	50-000944	MODESTO AVE		MODESTO	P	1919	HIST.SURV.	5352-0026-9999		5D2	
057630	50-000945	114 MODESTO AVE		MODESTO	P	1929	HIST.SURV.	5352-0058-0000		5S2	
057589	50-000946	119 MODESTO AVE		MODESTO	P	1919	HIST.SURV.	5352-0026-0001		5D2	
057590	50-000947	123 MODESTO AVE		MODESTO	P	1919	HIST.SURV.	5352-0026-0002		5D2	
057591	50-000948	124 MODESTO AVE		MODESTO	P	1922	HIST.SURV.	5352-0026-0003		5D2	
057592	50-000949	127 MODESTO AVE		MODESTO	P	1919	HIST.SURV.	5352-0026-0004		5D2	
057593	50-000950	129 MODESTO AVE		MODESTO	P	1919	HIST.SURV.	5352-0026-0005		5D2	
057594	50-000951	130 MODESTO AVE		MODESTO	P	1922	HIST.SURV.	5352-0026-0006		5D2	
057595	50-000952	138 MODESTO AVE		MODESTO	P	1924	HIST.SURV.	5352-0026-0007		5D2	
057596	50-000953	143 MODESTO AVE		MODESTO	P	1922	HIST.SURV.	5352-0026-0008		5D2	
057597	50-000954	146 MODESTO AVE		MODESTO	P	1922	HIST.SURV.	5352-0026-0009		5D2	
066757	50-000955	1634 MONTEREY AVE	HOUSING REHABILITATION	MODESTO	U		PROJ.REVW.	HUD880629D	07/26/88	6Y	
096288	50-000956	1734 MONTEREY AVE		MODESTO	P	1938	PROJ.REVW.	HUD950515Q	06/20/95	6Y	
184038		834 MUIR RD		MODESTO	P	1948	PROJ.REVW.	HUD100915C	10/01/10	6Y	
066992	50-000957	100 N EMERALD ST		MODESTO	U		PROJ.REVW.	HUD891018C	11/22/89	6Y	
146097		601 N M L KING DR	KING-KENNEDY MEMORIAL CENTER	MODESTO		1968	HIST.RES.	DOE-50-04-0001-0000	02/03/04	6Y	
							PROJ.REVW.	HUD040122D	02/03/04	6Y	
167363		1015 N M L KING JR DR		MODESTO	P	1917	PROJ.REVW.	HUD070521DD	05/25/07	6Y	
183027		123 N SANTA ANA AVE		MODESTO	P	1930	PROJ.REVW.	HUD100625J	07/19/10	6Y	
137742		325 N SANTA ANA AVE		MODESTO	P		HIST.RES.	DOE-50-03-0004-0000	02/20/03	6Y	
							PROJ.REVW.	HUD030218C	02/20/03	6Y	
057956	50-000958	611 NEEDHAM ST		MODESTO	P	1940	HIST.SURV.	5352-0101-0000		7R	
079383	50-000521	1122 NEEDHAM ST	QUIK SERVE MARKET	MODESTO	P	1935	HIST.RES.	DOE-50-92-0008-0000	11/13/92	6Y	
							PROJ.REVW.	FHWA920923B	11/13/92	6Y	
079381	50-000519	1137 NEEDHAM ST	FRED L. HILL PLUMBING	MODESTO	P	1915	HIST.RES.	DOE-50-92-0006-0000	11/13/92	6Y	
							PROJ.REVW.	FHWA920923B	11/13/92	6Y	
057796	50-000959	122 NELLIE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0024		5D2	
057793	50-000960	126 NELLIE AVE		MODESTO	P	1919	HIST.SURV.	5352-0098-0021		5D2	
057794	50-000961	130 NELLIE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0022		5D2	
167355		128 OAK ST		MODESTO	P	1960	PROJ.REVW.	HUD070521W	05/25/07	6Y	
065809	50-000962	210 OAK ST		MODESTO	U		PROJ.REVW.	HUD890417H	05/18/89	6Y	
090666	50-000963	212 OAK ST		MODESTO	P	1910	PROJ.REVW.	HUD940701K	08/11/94	6Y	
099937	50-000964	402 OAK ST		MODESTO	P	1942	PROJ.REVW.	HUD951218B	01/09/96	6Y	
099941	50-000965	403 OAK ST		MODESTO	P	1946	PROJ.REVW.	HUD951218E	01/09/96	6Y	
099939	50-000966	408 OAK ST		MODESTO	P	1941	PROJ.REVW.	HUD951218C	01/09/96	6Y	
099940	50-000967	422 OAK ST		MODESTO	P	1941	HIST.RES.	DOE-50-03-0005-0000	02/20/03	6Y	
							PROJ.REVW.	HUD030218D	02/20/03	6Y	

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PROPERTY-NUMBER	PRIMARY-#	STREET-ADDRESS	NAMES	CITY-NAME	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
							PROJ.REVW.	HUD951218D	01/09/96	6Y	
099936	50-000968	429 OAK ST		MODESTO	P	1941	PROJ.REVW.	HUD951218A	01/09/96	6Y	
092895	50-000969	437 OAK ST		MODESTO	P	1941	PROJ.REVW.	HUD940829B	11/16/94	6Y	
098719	50-000970	438 OAK ST		MODESTO	P	1941	PROJ.REVW.	HUD951214Z	12/18/95	6Y	
057797	50-000971	118 OLIVE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0025		5D2	
057798	50-000972	119 OLIVE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0026		5D2	
057799	50-000973	121 OLIVE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0027		5D2	
057800	50-000974	124 OLIVE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0028		5D2	
057801	50-000975	127 OLIVE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0029		5D2	
057802	50-000976	128 OLIVE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0030		5D2	
057803	50-000977	136 OLIVE AVE		MODESTO	P	1938	HIST.SURV.	5352-0098-0031		5D2	
057804	50-000978	202 OLIVE AVE		MODESTO	P	1924	HIST.SURV.	5352-0098-0032		5D2	
057807	50-000979	203 OLIVE AVE		MODESTO	P	1922	HIST.SURV.	5352-0098-0035		5D2	
057808	50-000980	207 OLIVE AVE		MODESTO	P	1924	HIST.SURV.	5352-0098-0036		5D2	
057805	50-000981	210 OLIVE AVE		MODESTO	P	1911	HIST.SURV.	5352-0098-0033		5D2	
057806	50-000982	211 OLIVE AVE		MODESTO	P	1925	HIST.SURV.	5352-0098-0034		5D2	
057809	50-000983	214 OLIVE AVE		MODESTO	P	1937	HIST.SURV.	5352-0098-0037		5D2	
065810	50-000984	222 OLIVE AVE		MODESTO	U		PROJ.REVW.	HUD890417I	05/18/89	6Y	
057810	50-000985	223 OLIVE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0038		5D2	
057811	50-000986	230 OLIVE AVE		MODESTO	P	1927	HIST.SURV.	5352-0098-0039		5D2	
057812	50-000987	108 ORANGE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0040		5D2	
057813	50-000988	109 ORANGE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0041		5D2	
057814	50-000989	114 ORANGE AVE		MODESTO	P	1937	HIST.SURV.	5352-0098-0042		5D2	
057815	50-000990	115 ORANGE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0043		5D2	
057816	50-000991	117 ORANGE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0044		5D2	
057819	50-000992	118 ORANGE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0047		5D2	
057820	50-000993	122 ORANGE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0048		5D2	
057817	50-000994	124 ORANGE AVE		MODESTO	P	1924	HIST.SURV.	5352-0098-0045		5D2	
057818	50-000995	125 ORANGE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0046		5D2	
057821	50-000996	128 ORANGE AVE		MODESTO	P	1922	HIST.SURV.	5352-0098-0049		5D2	
057822	50-000997	130 ORANGE AVE		MODESTO	P	1922	HIST.SURV.	5352-0098-0050		5D2	
057823	50-000998	133 ORANGE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0051		5D2	
057824	50-000999	201 ORANGE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0052		5D2	
057825	50-001000	205 ORANGE AVE		MODESTO	P	1922	HIST.SURV.	5352-0098-0053		5D2	
057826	50-001001	206 ORANGE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0054		5D2	
057827	50-001002	211 ORANGE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0055		5D2	
057828	50-001003	212 ORANGE AVE		MODESTO	P	1927	HIST.SURV.	5352-0098-0056		5D2	
057829	50-001004	213 ORANGE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0057		5D2	
057830	50-001005	217 ORANGE AVE		MODESTO	P	1918	HIST.SURV.	5352-0098-0058		5D2	
057831	50-001006	218 ORANGE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0059		5D2	
057832	50-001007	220 ORANGE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0060		5D2	
057833	50-001008	221 ORANGE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0061		5D2	
057834	50-001009	225 ORANGE AVE		MODESTO	P	1911	HIST.SURV.	5352-0098-0062		5D2	
057835	50-001010	229 ORANGE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0063		5D2	
057836	50-001011	232 ORANGE AVE		MODESTO	P	1938	HIST.SURV.	5352-0098-0064		5D2	
057837	50-001012	301 ORANGE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0065		5D2	
057838	50-001013	305 ORANGE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0066		5D2	
057839	50-001014	306 ORANGE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0067		5D2	
057840	50-001015	308 ORANGE AVE		MODESTO	P	1922	HIST.SURV.	5352-0098-0068		5D2	
057841	50-001016	309 ORANGE AVE		MODESTO	P	1914	HIST.SURV.	5352-0098-0069		5D2	
057842	50-001017	314 ORANGE AVE		MODESTO	P	1919	HIST.SURV.	5352-0098-0070		5D2	
167356		1004 PANAMA DR		MODESTO	P	1925	PROJ.REVW.	HUD070521X	05/25/07	6Y	
167357		1008 PANAMA DR		MODESTO	P	1925	PROJ.REVW.	HUD070521Y	05/25/07	6Y	
057941	50-001018	PARK AVE	WEST HALF OF WISECARVER ADDITION	MODESTO	P	1917	HIST.SURV.	5352-0099-9999		5D2	
057955	50-001019	PARK AVE	WISECARVER ADDITION, 100 BLOCK PAR	MODESTO	P	1917	HIST.SURV.	5352-0100-9999		5D2	
057860	50-001020	103 PARK AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0001		5D2	



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PROPERTY-NUMBER	PRIMARY-#	STREET-ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
057942	50-001021	107 PARK AVE		MODESTO	P	1917	HIST.SURV.	5352-0100-0001			5D2
057943	50-001022	111 PARK AVE		MODESTO	P	1917	HIST.SURV.	5352-0100-0002			5D2
057944	50-001023	115 PARK AVE		MODESTO	P	1917	HIST.SURV.	5352-0100-0003			5D2
057861	50-001024	119 PARK AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0002			5D2
057945	50-001025	123 PARK AVE		MODESTO	P	1917	HIST.SURV.	5352-0100-0004			5D2
057957	50-001026	127 PARK AVE		MODESTO	P	1940	HIST.SURV.	5352-0102-0000			7R
057862	50-001027	131 PARK AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0003			5D2
057863	50-001028	203 PARK AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0004			5D2
057864	50-001029	215 PARK AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0005			5D2
057865	50-001030	219 PARK AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0006			5D2
057866	50-001031	225 PARK AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0007			5D2
057867	50-001032	303 PARK AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0008			5D2
057868	50-001033	309 PARK AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0009			5D2
057958	50-001034	317 PARK AVE		MODESTO	P	1937	HIST.SURV.	5352-0103-0000			7R
167907	50-2156	221 PATTERSON RD		MODESTO	P	1925	PROJ.REVW.	FHWA070319E		04/23/07	6Y
155867		1434 PEARL ST		MODESTO	P	1955	PROJ.REVW.	HUD070329I		03/30/07	6Y
140343		1520 PEARL ST		MODESTO	P	1947	HIST.RES.	DOE-50-02-0015-0000		10/16/02	6Y
							PROJ.REVW.	HUD021007B		10/16/02	6Y
153732		1553 PEARL ST		MODESTO	P	1947	PROJ.REVW.	HUD100623H		07/19/10	6Y
							PROJ.REVW.	HUD050404W		04/18/05	6Y
153877		119 PINE ST		MODESTO	P	1924	PROJ.REVW.	HUD050429H		05/02/05	6Y
066670	50-001035	302 PINE ST		MODESTO	U		PROJ.REVW.	HUD880513G		06/13/88	6Y
146916		426 PINE ST		MODESTO	P	1941	HIST.RES.	DOE-50-04-0005-0000		05/18/04	6Y
							PROJ.REVW.	HUD040421C		05/18/04	6Y
147224		438 PINE ST		MODESTO	P	1945	HIST.RES.	DOE-50-04-0006-0000		04/20/04	6Y
							PROJ.REVW.	HUD040322B		04/20/04	6Y
181257		449 PINE ST		MODESTO	P	1948	PROJ.REVW.	HUD100812A		08/16/10	6Y
057869	50-001036	101 POPLAR AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0010			5D2
057870	50-001037	107 POPLAR AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0011			5D2
057871	50-001038	111 POPLAR AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0012			5D2
057872	50-001039	114 POPLAR AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0013			5D2
057946	50-001040	115 POPLAR AVE		MODESTO	P	1917	HIST.SURV.	5352-0100-0005			5D2
057873	50-001041	117 POPLAR AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0014			5D2
057947	50-001042	118 POPLAR AVE		MODESTO	P	1925	HIST.SURV.	5352-0100-0006			5D2
057874	50-001043	120 POPLAR AVE		MODESTO	P	1915	HIST.SURV.	5352-0099-0015			5D2
057875	50-001044	124 POPLAR AVE		MODESTO	P	1918	HIST.SURV.	5352-0099-0016			5D2
057876	50-001045	125 POPLAR AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0017			5D2
057877	50-001046	127 POPLAR AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0018			5D2
057878	50-001047	130 POPLAR AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0019			5D2
057879	50-001048	133 POPLAR AVE		MODESTO	P	1925	HIST.SURV.	5352-0099-0020			5D2
057948	50-001049	201 POPLAR AVE		MODESTO	P	1917	HIST.SURV.	5352-0100-0007			5D2
057880	50-001050	205 POPLAR AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0021			5D2
057881	50-001787	208 POPLAR AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0022			5D2
057882	50-001051	209 POPLAR AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0023			5D2
057883	50-001052	212 POPLAR AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0024			5D2
057949	50-001053	215 POPLAR AVE		MODESTO	P	1917	HIST.SURV.	5352-0100-0008			5D2
057884	50-001054	216 POPLAR AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0025			5D2
057950	50-001055	217 POPLAR AVE		MODESTO	P	1917	HIST.SURV.	5352-0100-0009			5D2
057951	50-001056	220 POPLAR AVE		MODESTO	P	1917	HIST.SURV.	5352-0100-0010			5D2
057885	50-001057	221 POPLAR AVE		MODESTO	P	1925	HIST.SURV.	5352-0099-0026			5D2
057886	50-001058	226 POPLAR AVE		MODESTO	P	1925	HIST.SURV.	5352-0099-0027			5D2
057952	50-001059	227 POPLAR AVE		MODESTO	P	1917	HIST.SURV.	5352-0100-0011			5D2
057887	50-001060	230 POPLAR AVE		MODESTO	P	1938	HIST.SURV.	5352-0099-0028			5D2
057888	50-001061	231 POPLAR AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0029			5D2
057959	50-001062	303 POPLAR AVE		MODESTO	P	1917	HIST.SURV.	5352-0104-0000			7R
057889	50-001063	306 POPLAR AVE		MODESTO	P	1917	HIST.SURV.	5352-0099-0030			5D2

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PROPERTY-NUMBER	PRIMARY-#	STREET-ADDRESS	NAMES	CITY-NAME	OWN	YR-C	OHP-PROG.	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
057890	50-001064	309 POPLAR AVE		MODESTO	P	1925	HIST. SURV.	5352-0099-0031			5D2
057891	50-001065	314 POPLAR AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0032			5D2
057892	50-001066	315 POPLAR AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0033			5D2
057893	50-001067	317 POPLAR AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0034			5D2
057894	50-001068	318 POPLAR AVE		MODESTO	P	1925	HIST. SURV.	5352-0099-0035			5D2
183026		1924 RICKY AVE		MODESTO	P	1960	PROJ. REVW.	HUD100625I	07/19/10		6Y
102097	50-001069	210 RIO GRANDE AVE		MODESTO	P	1940	PROJ. REVW.	HUD960319D	04/29/96		6Y
164103		421 RIO GRANDE AVE	TEMPLO ROSA DE SARON	MODESTO	P	1942	PROJ. REVW.	HUD061103A	11/20/06		6Y
164104		525 RIO GRANDE AVE	EL BUEN SAMARITANO	MODESTO	P	1944	PROJ. REVW.	HUD061103A	11/20/06		6Y
143752		1701 ROBERTSON RD		MODESTO	P	1950	HIST. RES.	DOE-50-03-0020-0000	10/03/03		6Y
							PROJ. REVW.	HUD030911D	10/03/03		6Y
183025		2047 ROBLE AVE		MODESTO	P	1949	PROJ. REVW.	HUD100625H	07/19/10		6Y
066817	50-001070	133 ROSEDALE AVE		MODESTO	U		PROJ. REVW.	HUD880726M	08/26/88		6Y
066472	50-001071	219 ROSEDALE AVE	REHABILITATION HOUSING	MODESTO	U		PROJ. REVW.	HUD880209D	03/07/88		6Y
065513	50-001072	223 ROSEDALE AVE		MODESTO	U		PROJ. REVW.	HUD881020N	11/14/88		6Y
066473	50-001073	227 ROSEDALE AVE	HOUSING REHABILITATION	MODESTO	U		PROJ. REVW.	HUD880209E	03/07/88		6Y
082366	50-001074	314 ROSEDALE AVE		MODESTO	P	1922	PROJ. REVW.	HUD930603I	06/11/93		6Y
065811	50-001075	321 ROSEDALE AVE		MODESTO	U		PROJ. REVW.	HUD890417J	05/18/89		6Y
080890	50-001076	325 ROSEDALE AVE		MODESTO	U	1921	PROJ. REVW.	HUD930311h	04/21/93		6Y
066248	50-001077	329 ROSEDALE AVE	RESIDENCE	MODESTO	U		PROJ. REVW.	HUD870921T	10/21/87		6Y
065320	50-001078	337 ROSEDALE AVE	RESIDENCE	MODESTO	U		PROJ. REVW.	HUD870806C	09/03/87		6Y
082346	50-001079	338 ROSEDALE AVE		MODESTO	P	1926	PROJ. REVW.	HUD930603N	06/11/93		6Y
065366	50-001080	407 ROSEDALE AVE	RESIDENCE	MODESTO	U		PROJ. REVW.	HUD870827C	09/21/87		6Y
093936	50-001081	418 ROSEDALE AVE		MODESTO	P	1926	PROJ. REVW.	HUD941212A	12/27/94		6Y
082372	50-001082	419 ROSEDALE AVE		MODESTO	P	1915	PROJ. REVW.	HUD930603o	06/11/93		6Y
066269	50-001083	426 ROSEDALE AVE	RESIDENCE	MODESTO	U		PROJ. REVW.	HUD870930E	10/28/87		6Y
065367	50-001084	433 ROSEDALE AVE	RESIDENCE	MODESTO	U		PROJ. REVW.	HUD870827D	09/21/87		6Y
066379	50-001085	444 ROSEDALE AVE		MODESTO	U		PROJ. REVW.	HUD871123P	12/24/87		6Y
138440		445 ROSEDALE AVE		MODESTO	P	1950	HIST. RES.	DOE-50-03-0008-0000	03/27/03		6Y
							PROJ. REVW.	HUD030321G	03/27/03		6Y
080859	50-001086	114 ROSELAWN AVE		MODESTO	U	1925	PROJ. REVW.	HUD930311K	04/21/93		6Y
066380	50-001087	132 ROSELAWN AVE	HOUSING REHABILITATION	MODESTO	U		PROJ. REVW.	HUD871123P	12/24/87		6Y
065319	50-001088	202 ROSELAWN AVE	RESIDENCE	MODESTO	U		PROJ. REVW.	HUD870806B	09/03/87		6Y
065884	50-001089	207 ROSELAWN AVE	HOUSING REHABILITATION	MODESTO	U		PROJ. REVW.	HUD890516H	06/13/89		6Y
066425	50-001090	215 ROSELAWN AVE	RESIDENTIAL REHABILITATION	MODESTO	P		PROJ. REVW.	HUD930603I	06/11/93		6Y
							PROJ. REVW.	HUD871221F	01/21/88		6Y
066671	50-001091	227 ROSELAWN AVE		MODESTO	U		PROJ. REVW.	HUD880513H	06/13/88		6Y
066476	50-001092	231 ROSELAWN AVE	HOUSING REHABILITATION	MODESTO	U		PROJ. REVW.	HUD880209H	03/07/88		6Y
155073		314 ROSELAWN AVE		MODESTO	P	1925	PROJ. REVW.	HUD050808C	08/10/05		6Y
082369	50-001093	322 ROSELAWN AVE		MODESTO	P	1926	PROJ. REVW.	HUD930603I	06/11/93		6Y
066430	50-001094	418 ROSELAWN AVE		MODESTO	U		PROJ. REVW.	HUD871222C	01/21/88		6Y
183033		26 ROSEMONT		MODESTO	U		PROJ. REVW.	HUD871222C	01/21/88		6Y
066475	50-001095	102 ROSEMONT AVE	HOUSING REHABILITATION	MODESTO	P	1925	PROJ. REVW.	HUD100625M	07/19/10		6Y
080858	50-001096	103 ROSEMONT AVE		MODESTO	U	1926	PROJ. REVW.	HUD880209G	03/07/88		6Y
066759	50-001097	121 ROSEMONT AVE	HOUSING REHABILITATION	MODESTO	U		PROJ. REVW.	HUD930311J	04/21/93		6Y
066066	50-001103	122 ROSEMONT AVE		MODESTO	U		PROJ. REVW.	HUD880629F	07/26/88		6Y
066672	50-001099	125 ROSEMONT AVE		MODESTO	U		PROJ. REVW.	HUD890727H	08/25/89		6Y
082354	50-001100	129 ROSEMONT AVE		MODESTO	U		PROJ. REVW.	HUD880513I	06/13/88		6Y
066818	50-001101	138 ROSEMONT AVE		MODESTO	P	1925	PROJ. REVW.	HUD930603V	06/11/93		6Y
066819	50-001102	140 ROSEMONT AVE		MODESTO	U		PROJ. REVW.	HUD880726N	08/26/88		6Y
066068	50-001103	141 ROSEMONT AVE		MODESTO	U	1920	PROJ. REVW.	HUD930311I	04/21/93		6Y
							PROJ. REVW.	HUD890727J	08/25/89		6Y
183252		142 ROSEMONT AVE		MODESTO	P	1925	PROJ. REVW.	HUD100630I	07/21/10		6Y
066755	50-001104	217 ROSEMONT AVE	HOUSING REHABILITATION	MODESTO	U		PROJ. REVW.	HUD880629B	07/26/88		6Y
066673	50-001105	222 ROSEMONT AVE		MODESTO	U		PROJ. REVW.	HUD880513J	06/13/88		6Y
065514	50-001106	225 ROSEMONT AVE		MODESTO	U		PROJ. REVW.	HUD881020O	11/14/88		6Y

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PROPERTY-NUMBER	PRIMARY-#	STREET ADDRESS	NAMES	CITY NAME	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
065659	50-001107	226 ROSEMONT AVE	DEMOLITION	MODESTO	P	1926	PROJ. REVW.	HUD930603H	06/11/93	6Y	
							PROJ. REVW.	HUD881209K	02/06/89	6Y	
183140		232 ROSEMONT AVE		MODESTO	P	1925	PROJ. REVW.	HUD100702A	07/23/10	6Y	
180178		135 ROSINA AVE		MODESTO	P	1950	PROJ. REVW.	HUD100621N	07/16/10	6Y	
093937	50-001108	605 S MADISON AVE		MODESTO	P	1918	PROJ. REVW.	HUD941213A	12/27/94	6Y	
185684		415 SAN JUAN DR		MODESTO	P	1950	PROJ. REVW.	HUD100222A	03/08/10	6Y	
066998	50-001109	322 SANTA BARBARA AVE		MODESTO	U		PROJ. REVW.	HUD891018I	11/22/89	6Y	
101966	50-001110	736 SANTA CRUZ AVE		MODESTO	P	1945	PROJ. REVW.	HUD960327B	04/25/96	6Y	
067071	50-001112	820 SANTA CRUZ AVE		MODESTO	U		PROJ. REVW.	HUD900102C	02/01/90	6Y	
097311	50-001113	305 SCHOOL ST		MODESTO	P	1940	PROJ. REVW.	HUD950803A	09/19/95	6Y	
183030		341 SEVERIN AVE		MODESTO	P	1948	PROJ. REVW.	HUD100625L	07/19/10	6Y	
167358		908 SEYBOLD AVE		MODESTO	P	1934	PROJ. REVW.	HUD070521Z	05/25/07	6Y	
167360		915 SEYBOLD AVE		MODESTO	P		PROJ. REVW.	HUD070521AA	05/25/07	6Y	
167361		919 SEYBOLD AVE		MODESTO	P	1953	PROJ. REVW.	HUD070521BB	05/25/07	6Y	
167362		934 SEYBOLD AVE		MODESTO	P	1918	PROJ. REVW.	HUD070521CC	05/25/07	6Y	
065812	50-001114	816 SIERRA AVE		MODESTO	U		PROJ. REVW.	HUD890417K	05/18/89	6Y	
082340	50-001115	502 SIERRA DR		MODESTO	P	1921	PROJ. REVW.	HUD930603D	06/11/93	6Y	
082345	50-001116	510 SIERRA DR		MODESTO	P	1940	PROJ. REVW.	HUD940927O	11/16/94	6Y	
							PROJ. REVW.	HUD930603M	06/11/93	6Y	
082344	50-001117	514 SIERRA DR		MODESTO	P	1940	PROJ. REVW.	HUD930603L	06/11/93	6Y	
082342	50-001118	518 SIERRA DR		MODESTO	P	1921	PROJ. REVW.	HUD930603G	06/11/93	6Y	
082338	50-001119	522 SIERRA DR		MODESTO	P	1921	PROJ. REVW.	HUD930603B	06/11/93	6Y	
065621	50-001120	618 SIERRA DR		MODESTO	U		PROJ. REVW.	HUD881209J	01/04/89	6Y	
066474	50-001121	810 SIERRA DR		MODESTO	U		PROJ. REVW.	HUD880209F	03/07/88	6Y	
140503		2925 SNYDER AVE	SIERRA REHABILITATION RICKENBAUCH FARM COMPLEX → demolished	MODESTO	P	1940	HIST. RES.	DOE-50-03-0012-0000	06/04/03	6Y	
							PROJ. REVW.	FCC030514B	06/04/03	6Y	
153737		2709 SPARKS WY		MODESTO	P	1958	PROJ. REVW.	HUD050404AA	04/18/05	6Y	
066820	50-001122	603 SPENCER AVE		MODESTO	U		PROJ. REVW.	HUD880726O	08/26/88	6Y	
163247		313 SPRUCE ST		MODESTO	P	1938	PROJ. REVW.	HUD060927E	09/27/06	6Y	
065889	50-001123	321 SPRUCE ST	HOUSING REHABILITATION	MODESTO	U		PROJ. REVW.	HUD890516M	06/13/89	6Y	
124798		SR 132	DETERMINATION OF ELIGIBILITY AND E	MODESTO	S		PROJ. REVW.	FHWA000608X	06/19/00	6Y	
057576	50-001125	215 STODDARD AVE	NORMAN S. WEST HOUSE	MODESTO	P	1927	HIST. SURV.	5352-0021-0000		7R	
057577	50-001126	225 STODDARD AVE		MODESTO	P	1927	HIST. SURV.	5352-0022-0000		7R	
160500		3808 STRANG AVE		MODESTO	P	1944	PROJ. REVW.	HUD060203I	02/06/06	6Y	
067072	50-001127	2202 STRIVENS AVE		MODESTO	U		PROJ. REVW.	HUD900102E	02/01/90	6Y	
153735		2220 STRIVENS AVE		MODESTO	P	1949	PROJ. REVW.	HUD050404Y	04/18/05	6Y	
153731		2322 STRIVENS AVE		MODESTO	P	1948	PROJ. REVW.	HUD050404V	04/18/05	6Y	
177476		2404 STRIVENS AVE		MODESTO	P	1959	PROJ. REVW.	HUD091027b	11/17/09	6Y	
066061	50-001128	117 SUNSET		MODESTO	U		PROJ. REVW.	HUD890727C	08/25/89	6Y	
066062	50-001129	121 SUNSET		MODESTO	U		PROJ. REVW.	HUD890727D	08/25/89	6Y	
065886	50-001130	127 SUNSET BLVD	HOUSING REHABILITATION	MODESTO	U		PROJ. REVW.	HUD890516J	06/13/89	6Y	
082349	50-001131	129 SUNSET BLVD		MODESTO	P	1925	PROJ. REVW.	HUD930603Q	06/11/93	6Y	
067073	50-001132	130 SUNSET BLVD		MODESTO	U		PROJ. REVW.	HUD900102F	02/01/90	6Y	
065887	50-001133	133 SUNSET BLVD	HOUSING REHABILITATION	MODESTO	U		PROJ. REVW.	HUD890516K	06/13/89	6Y	
065813	50-001134	138 SUNSET BLVD		MODESTO	U		PROJ. REVW.	HUD890417L	05/18/89	6Y	
090658	50-001135	144 SUNSET BLVD		MODESTO	P	1920	PROJ. REVW.	HUD940701H	08/11/94	6Y	
082347	50-001136	201 SUNSET BLVD		MODESTO	P	1925	PROJ. REVW.	HUD930603O	06/11/93	6Y	
066995	50-001137	202 SUNSET BLVD		MODESTO	P		PROJ. REVW.	HUD930603X	06/11/93	6Y	
							PROJ. REVW.	HUD891018F	11/22/89	6Y	
082361	50-001138	207 SUNSET BLVD		MODESTO	P	1925	PROJ. REVW.	HUD930603c	06/11/93	6Y	
082364	50-001139	211 SUNSET BLVD		MODESTO	P	1940	PROJ. REVW.	HUD930603f	06/11/93	6Y	
065885	50-001140	212 SUNSET BLVD	HOUSING REHABILITATION	MODESTO	U		PROJ. REVW.	HUD890516I	06/13/89	6Y	
090654	50-001141	311 SUTTER AVE		MODESTO	P	1921	PROJ. REVW.	HUD940701D	08/11/94	6Y	
067074	50-001142	411 SUTTER AVE		MODESTO	U		PROJ. REVW.	HUD900102G	02/01/90	6Y	
082387	50-001143	419 SUTTER AVE		MODESTO	P	1925	PROJ. REVW.	HUD930603jj	06/11/93	6Y	
066359	50-001144	415 SUTTER ST	REHABILITATION OF HOUSE	MODESTO	U		PROJ. REVW.	HUD871109K	12/15/87	6Y	



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PROPERTY-NUMBER	PRIMARY-#	STREET ADDRESS	NAMES	CITY NAME	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
140434	- 2024	5026 TUSTEN AVE	Janson verified by J. McDole, OHP	MODESTO	P	1948	HIST. RES.	DOE-50-00-0045-0000	11/16/00	6Y	
177633		1518 VICTOR WY		MODESTO	P	1956	PROJ. REVW.	FHWA001020A	11/16/00	6Y	
176959		1610 VICTOR WY		MODESTO	P	1956	PROJ. REVW.	HUD090929C	10/19/09	6Y	
090489	50-001191	318 VINE ST		MODESTO	P	1940	HIST. RES.	DOE-50-03-0010-0000	05/23/03	6Y	
							PROJ. REVW.	HUD030514D	05/23/03	6Y	
							PROJ. REVW.	HUD940616A	07/25/94	6Y	
065657	50-001192	511 VINE ST	REHABILITATION	MODESTO	U		PROJ. REVW.	HUD890109F	02/07/89	6Y	
057928	50-001193	108 VIRGINIA AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0069		5D2	
057929	50-001194	114 VIRGINIA AVE		MODESTO	P	1924	PROJ. REVW.	HUD100625G	07/19/10	6Y	
							HIST. SURV.	5352-0099-0070		5D2	
057843	50-001195	115 VIRGINIA AVE		MODESTO	P	1914	HIST. SURV.	5352-0098-0071		5D2	
057844	50-001196	117 VIRGINIA AVE		MODESTO	P	1919	HIST. SURV.	5352-0098-0072		5D2	
057845	50-001197	123 VIRGINIA AVE		MODESTO	P	1914	HIST. SURV.	5352-0098-0073		5D2	
057930	50-001198	134 VIRGINIA AVE		MODESTO	P	1925	HIST. SURV.	5352-0099-0071		5D2	
057960	50-001199	204 VIRGINIA AVE		MODESTO	P	1917	HIST. SURV.	5352-0105-0000		5S2	
057846	50-001200	207 VIRGINIA AVE		MODESTO	P	1922	HIST. SURV.	5352-0098-0074		5D2	
057931	50-001201	214 VIRGINIA AVE		MODESTO	P	1924	HIST. SURV.	5352-0099-0072		5D2	
057932	50-001202	220 VIRGINIA AVE		MODESTO	P	1924	HIST. SURV.	5352-0099-0073		5D2	
057961	50-001204	224 VIRGINIA AVE		MODESTO	P	1924	HIST. SURV.	5352-0106-0000		7R	
057933	50-001205	226 VIRGINIA AVE		MODESTO	P	1924	HIST. SURV.	5352-0099-0074		5D2	
057847	50-001206	227 VIRGINIA AVE		MODESTO	P	1924	HIST. SURV.	5352-0098-0075		5D2	
057934	50-001207	302 VIRGINIA AVE		MODESTO	P	1926	HIST. SURV.	5352-0099-0075		5D2	
057935	50-001208	306 VIRGINIA AVE		MODESTO	P	1930	HIST. SURV.	5352-0099-0076		5D2	
057848	50-001209	311 VIRGINIA AVE		MODESTO	P	1917	HIST. SURV.	5352-0098-0076		5D2	
057849	50-001210	313 VIRGINIA AVE		MODESTO	P	1914	HIST. SURV.	5352-0098-0077		5D2	
057936	50-001211	314 VIRGINIA AVE		MODESTO	P	1917	HIST. SURV.	5352-0099-0077		5D2	
057852	50-001212	315 VIRGINIA AVE		MODESTO	P	1917	HIST. SURV.	5352-0098-0080		5D2	
057853	50-001213	318 VIRGINIA AVE		MODESTO	P	1937	HIST. SURV.	5352-0098-0081		5D2	
							HIST. SURV.	5352-0107-0000		7R	
169784		1540 W HATCH RD		MODESTO	P	1981	PROJ. REVW.	HUD071206D	12/12/07	6Y	
057579	50-001214	117 W MORRIS AVE		MODESTO	P	1922	HIST. SURV.	5352-0024-0000		7R	
057738	50-001215	203 W MORRIS AVE		MODESTO	P	1922	HIST. SURV.	5352-0069-0021		5D2	
057739	50-001216	207 W MORRIS AVE		MODESTO	P	1922	HIST. SURV.	5352-0069-0022		5D2	
057740	50-001217	215 W MORRIS AVE		MODESTO	P	1922	HIST. SURV.	5352-0069-0023		5D2	
057741	50-001218	221 W MORRIS AVE		MODESTO	P	1926	HIST. SURV.	5352-0069-0024		5D2	
057742	50-001219	229 W MORRIS AVE		MODESTO	P	1926	HIST. SURV.	5352-0069-0025		5D2	
057743	50-001220	233 W MORRIS AVE		MODESTO	P	1926	HIST. SURV.	5352-0069-0026		5D2	
183065		1413 W ORANGEBURG AVE		MODESTO	P	1946	PROJ. REVW.	HUD100728N	08/02/10	6Y	
190253		1427 W ROSEBURG AVE		MODESTO	P	1954	PROJ. REVW.	HUD120910A	07/27/12	6Y	
150374		2312 WHITCOMB WY		MODESTO	P	1952	HIST. RES.	DOE-50-04-0015-0000	09/09/04	6Y	
							PROJ. REVW.	HUD040730F	09/09/04	6Y	
147225		2329 WHITCOMB WY		MODESTO	P	1953	HIST. RES.	DOE-50-04-0007-0000	04/20/04	6Y	
							PROJ. REVW.	HUD040322C	04/20/04	6Y	
155425		2604 WHITCOMB WY		MODESTO	P	1953	PROJ. REVW.	HUD050825E	09/21/05	6Y	
153733		2609 WHITCOMB WY		MODESTO	P	1954	PROJ. REVW.	HUD050404X	04/18/05	6Y	
057939	50-001221	717 WRIGHT ST		MODESTO	P	1920	HIST. SURV.	5352-0099-0080		5D2	
057940	50-001222	718 WRIGHT ST		MODESTO	P	1920	HIST. SURV.	5352-0099-0081		5D2	
057850	50-001223	810 WRIGHT ST		MODESTO	P	1937	HIST. SURV.	5352-0098-0078		5D2	
057851	50-001224	816 WRIGHT ST		MODESTO	P	1931	HIST. SURV.	5352-0098-0079		5D2	
057854	50-001225	820 WRIGHT ST		MODESTO	P	1931	HIST. SURV.	5352-0098-0082		5D2	
057855	50-001226	917 WRIGHT ST		MODESTO	P	1914	HIST. SURV.	5352-0098-0083		5D2	
057856	50-001227	921 WRIGHT ST		MODESTO	P	1914	HIST. SURV.	5352-0098-0084		5D2	
057857	50-001228	925 WRIGHT ST		MODESTO	P	1917	HIST. SURV.	5352-0098-0085		5D2	
177622		1001 WRIGHT ST		MODESTO	P		PROJ. REVW.	HUD090925C	10/19/09	6Y	
057858	50-001229	1007 WRIGHT ST		MODESTO	P	1917	HIST. SURV.	5352-0098-0086		5D2	

PROPERTY-NUMBER	PRIMARY-#	STREET ADDRESS	NAMES	CITY NAME	OWN	YR-C	OHP-PROG.	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
065368	50-001230	406	YOSEMITE	MODESTO	U		PROJ. REVW.	HUD870827E	09/21/87	6Y	
082388	50-001231	224	YOSEMITE AVE	MODESTO	P	1916	PROJ. REVW.	HUD930603kk	06/11/93	6Y	
082373	50-001232	228	YOSEMITE AVE	MODESTO	P	1920	PROJ. REVW.	HUD930603p	06/11/93	6Y	
067003	50-001233	317	YOSEMITE AVE	MODESTO	U		PROJ. REVW.	HUD891018N	11/22/89	6Y	
065620	50-001234	318	YOSEMITE AVE	MODESTO	U		PROJ. REVW.	HUD881209I	01/04/89	6Y	
065814	50-001235	322	YOSEMITE AVE	MODESTO	U		PROJ. REVW.	HUD890417M	05/18/89	6Y	
067002	50-001236	325	YOSEMITE AVE	MODESTO	U	1911	PROJ. REVW.	HUD930311g PROJ. REVW. HUD891018M	04/21/93 11/22/89	6Y 6Y	
082386	50-001237	329	YOSEMITE AVE	MODESTO	P	1939	PROJ. REVW.	HUD930603gg	06/11/93	6Y	
082382	50-001238	330	YOSEMITE AVE	MODESTO	P	1920	PROJ. REVW.	HUD930603aa	06/11/93	6Y	
080850	50-001239	341	YOSEMITE AVE	MODESTO	U	1925	PROJ. REVW.	HUD930311C	04/21/93	6Y	
082384	50-001240	413	YOSEMITE AVE	MODESTO	P	1922	PROJ. REVW.	HUD930603ee	06/11/93	6Y	
080852	50-001241	414	YOSEMITE AVE	MODESTO	U	1920	PROJ. REVW.	HUD930311E	04/21/93	6Y	
090657	50-001242	426	YOSEMITE AVE	MODESTO	P	1930	PROJ. REVW.	HUD940701G	08/11/94	6Y	
080854	50-001243	429	YOSEMITE AVE	MODESTO	U	1922	PROJ. REVW.	HUD930311G	04/21/93	6Y	
080853	50-001244	433	YOSEMITE AVE	MODESTO	U	1922	PROJ. REVW.	HUD930311F	04/21/93	6Y	
080851	50-001245	437	YOSEMITE AVE	MODESTO	U	1926	PROJ. REVW.	HUD930311D	04/21/93	6Y	
137004		1316	YOSEMITE BLVD	MODESTO	P	1916	HIST. RES.	DOE-50-02-0008-0000 PROJ. REVW. FHWA021015B	12/12/02 12/12/02	6Y 6Y	
137005		1915	YOSEMITE BLVD	MODESTO	P	1920	HIST. RES.	DOE-50-02-0009-0000 PROJ. REVW. FHWA021015B	12/12/02 12/12/02	6Y 6Y	
132930		2741	YOSEMITE BLVD	MODESTO	P	1906	HIST. RES.	DOE-50-01-0002-0000 PROJ. REVW. FHWA010725A	11/06/01 11/06/01	2S2 6Y	
132931	<i>P-50-1874</i>	4525	YOSEMITE BLVD	MODESTO	P	1890	HIST. RES.	DOE-50-01-0003-0000 PROJ. REVW. FHWA010725A	11/06/01 11/06/01	6Y 6Y	
132932		4601	YOSEMITE BLVD	MODESTO	P	1912	HIST. RES.	DOE-50-01-0004-0000 PROJ. REVW. FHWA010725A	11/06/01 11/06/01	6Y 6Y	
170810		4845	YOSEMITE BLVD	MODESTO	M	1939	PROJ. REVW.	DHS070109A	02/14/07	6Y	
151334			UNION PACIFIC RAILROAD COMPANY	(VIC) MODESTO	U	1912	HIST. RES.	DOE-50-00-0054-0000 PROJ. REVW. ICC991221A	01/20/00 01/20/00	6Y 6Y	
091464	50-000548		ADAMSVILLE	(VIC) MODESTO	U		HIST. RES.	SPHI-STA-001	07/31/79	7L	
091466	50-000551		PARADISE	(VIC) MODESTO	U	1867	HIST. RES.	SPHI-STA-005	07/31/79	7L	
175472			TUOLUMNE CITY BRIDGE APPROACH	(VIC) MODESTO	U	1903	PROJ. REVW.	FHWA010522C	06/25/01	6Y	
151336			UNION PACIFICE RAILROAD COMPANY	(VIC) MODESTO	U	1916	HIST. RES.	DOE-50-00-0055-0000 PROJ. REVW. ICC771221A	01/20/00 01/20/00	6Y 6Y	
179909			SAN JOAQUIN PIPELINES #1 & 2	(VIC) MODESTO	M	1932	PROJ. REVW.	COE100830A	09/27/10	2S2	A
057557	50-001246	SR 132	BRIDGE #38-47	(VIC) MODESTO	S	1919	HIST. SURV.	5352-0002-0000		7R	
057558	50-001247	SR 132	BRIDGE #38-54	(VIC) MODESTO	S	1906	HIST. SURV.	5352-0003-0000 PROJ. REVW. 65000739		3S	
174959		919	FRESNO ST	NEWMAN	P	1957	PROJ. REVW.	FHWA090227A	03/27/09	6Y	
057983	50-001248	926	FRESNO ST	NEWMAN	P	1928	HIST. SURV.	5360-0034-0000		7N	
174958		927	FRESNO ST	NEWMAN	P	1903	PROJ. REVW.	FHWA090227A	03/27/09	2S2	
057984	50-001249	929	FRESNO ST	NEWMAN	P	1920	HIST. SURV.	5360-0036-0000		7R	
174957		933	FRESNO ST	NEWMAN	P	1912	PROJ. REVW.	FHWA090227A	03/27/09	2S2	
174970		1200	MAIN ST	NEWMAN	M	1870	PROJ. REVW.	FHWA090227A	03/27/09	6Y	
161724		1305	MAIN ST	NEWMAN		1909	TAX. CERT.	537.9-50-0006	04/18/06	7J	
174955		1342	MAIN ST	NEWMAN		1907	PROJ. REVW.	FHWA090227A	03/27/09	2S2	
174956		1350	MAIN ST	NEWMAN	P	1900	PROJ. REVW.	FHWA090227A	03/27/09	6Y	
155876	<i>50-1911</i>	1528	MAIN ST	NEWMAN	P	1959	PROJ. REVW.	FCC050916I	10/14/05	6Y	
058128	50-001250	1243	MERCED ST	NEWMAN	P	1935	HIST. SURV.	5360-0264-0000		7R	
058131	50-001251	1246	MERCED ST	NEWMAN	P	1910	HIST. SURV.	5360-0268-0000		7R	
091113	50-001252	1037	N ST	NEWMAN	P	1900	PROJ. REVW.	HUD940721E	08/24/94	6Y	
057967	50-001253	1121	N ST	NEWMAN	P	1925	HIST. SURV.	5360-0005-0000		7R	
057968	50-001254	1327	N ST	NEWMAN	P	1908	PROJ. REVW.	FHWA090227A	03/27/09	2S2	

WALTER FRANKLIN BEARD HOUSE  
↳ 411 bldgs demolished

YANCY BUILDING *pythias*  
KNIGHT OF ~~Pythias~~ BUILDING  
ST. GEORGE HOTEL

FOURTH EDITION

# Historic Spots in CALIFORNIA

by

Mildred Brooke Hoover

Hero Eugene Rensch

Ethel Grace Rensch

William N. Abeloe

Revised by Douglas E. Kyle

(1990)

STANFORD UNIVERSITY PRESS • STANFORD, CALIFORNIA

until the building of the west side railroad in the middle 1870's. Grayson today is a small town two miles north-east of Westley.

*Langworth and Burneyville,  
Oakdale and Riverbank*

The present towns of Oakdale and Riverbank, which date from the 1870's, are the successors of Langworth and Burneyville, respectively, which had been established before the coming of the railroad. Langworth, plotted as a town in 1860 by Henry Langworthy, was located on the Mariposa Road on the hill above the ferry owned by James Burney. Burney was a former sheriff of Mariposa County and a member of the Mariposa Battalion under Major James D. Savage in 1851. He moved down the river to begin Burneyville in 1867. When the railroad was run east of this site in 1871, the post office moved to the new town of Oakdale, and Langworth was finished. A plaque commemorating the town was placed by E Clampus Vitus at the junction of Langworth Road and SR 108, about three miles west of Oakdale. Oakdale has been an agricultural processing and shipping center for many years, as well as a stopover for travelers on the way to Yosemite from the San Francisco Bay Area.

At the corner of First and High streets in Riverbank, an E Clampus Vitus plaque notes that Burneyville was founded on the riverbank below the bluff by Major James Burney in 1867. Burney operated a second ferry at this point for a few years. He then served with distinction, in the words of the plaque, as "public servant, school superintendent and justice of the peace; Burney lived a full life [and] died 1901 at the age of 87 years." The small community of Burneyville has been absorbed by the expanding town of Riverbank.

*Modesto*

Modesto is the offspring of the railroad. The Central Pacific reached the site in 1870, and it was two years before the next thrust down the San Joaquin Valley carried the line farther south and east. Although early accounts seem to agree that the railroad terminus was not an attractive spot, it was clear to many people that the future of Stanislaus County lay along this central route. Within a year the new community was chosen to be the county seat, even though accommodations were so few that the county offices were scattered among boarding houses, the back rooms of commercial buildings, and similar improvised quarters.

The explanation most often given for the distinctive

name of the town—Modesto is Spanish for "modesty"—goes as follows. The directors of the Central Pacific named railroad stops for officials of the company or members of their families. The name of William C. Ralston was proposed for the new town, but the San Francisco banker declined the honor. The chosen name reflects his unusual modesty in so doing.

Modesto's early history is full of stories of Wild West hell-raising in saloons and dens of iniquity. Vigilantes frequently purged the undesirable elements, who returned after a short while. At the same time, the undeniable progress in agriculture and the prosperity brought by the railroad ensured that a more serious, permanent quality would eventually take over in the community. In 1912, the energetic Modesto Business Men's Association received permission to erect an ornamental iron arch at the intersection of Ninth and I streets in what was then the commercial heart of town. (Other Central Valley towns, such as Lodi and Orland, made the same kind of construction.) Although the slogan to be written on the arch was originally NOBODY'S GOT MODESTO'S GOAT, sanity mercifully prevailed and the runner-up in the competition for the slogan—MODESTO: WATER WEALTH CONTENTMENT HEALTH—was chosen. It can be seen to this day, smartly embellished with electric lights at night, as the planners intended.

The McHenry Museum at 1402 I Street is housed in what was once the city library building, given to the city in 1912 by the McHenry family. Among its treasures are reconstructed offices, a large collection of guns and cattle brands from Stanislaus County, and a research and archive center for Modesto and Stanislaus County history. The McHenry Mansion, in which this prominent family lived, is nearby at Fifteenth and I



McHenry Mansion, Modesto



streets. It has been restored to its Victorian grandeur, including the distinctive cupola on top, visible, it was said, for miles around when it was constructed in 1883. The mansion is open to the public on a regular basis.

*Patterson*

An interesting example of a planned community, Patterson was founded in 1909. Thomas W. Patterson, one of the heirs to his uncle's Rancho del Puerto, was impressed by the colonization projects in other parts of the Central Valley, which had brought many settlers into the region. His town was laid out in the shape of a wagon wheel, the streets converging on a plaza where the Hotel del Puerto stands. The hotel, built in 1910, was the first building in town, along with the office of the Patterson Ranch Company, which stands in the center of the plaza and is now the home of the Patterson City Museum. The handsome palm-lined thoroughfare of Las Palmas Avenue, leading into the town from the west, was planted by Patterson, it is thought in emulation of Kearney Avenue in Fresno.



Hotel del Puerto, Patterson

A complex irrigation project, bringing water from the San Joaquin River to the town, insured its success, and within a few months of its establishment, Patterson was on the way to becoming a principal town on the west side of the San Joaquin Valley.

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from 1841  
the settler

OFFICIAL  
MAP OF  
THE COUNTY OF

**STANISLAUS**

CALIFORNIA

1906

FROM OFFICIAL RECORDS AND SURVEYS

COMPILED

AND PUBLISHED BY

**STANISLAUS  
LAND & ABSTRACT CO.**

MODESTO, CAL.

DRAWN BY E. CARLTON

MILTON

TINBUE

TINBUE

TINBUE



1953

# BRUSH LAKE QUADRANGLE

CALIFORNIA-STANISLAUS CO.

7.5 MINUTE SERIES (TOPOGRAPHIC)

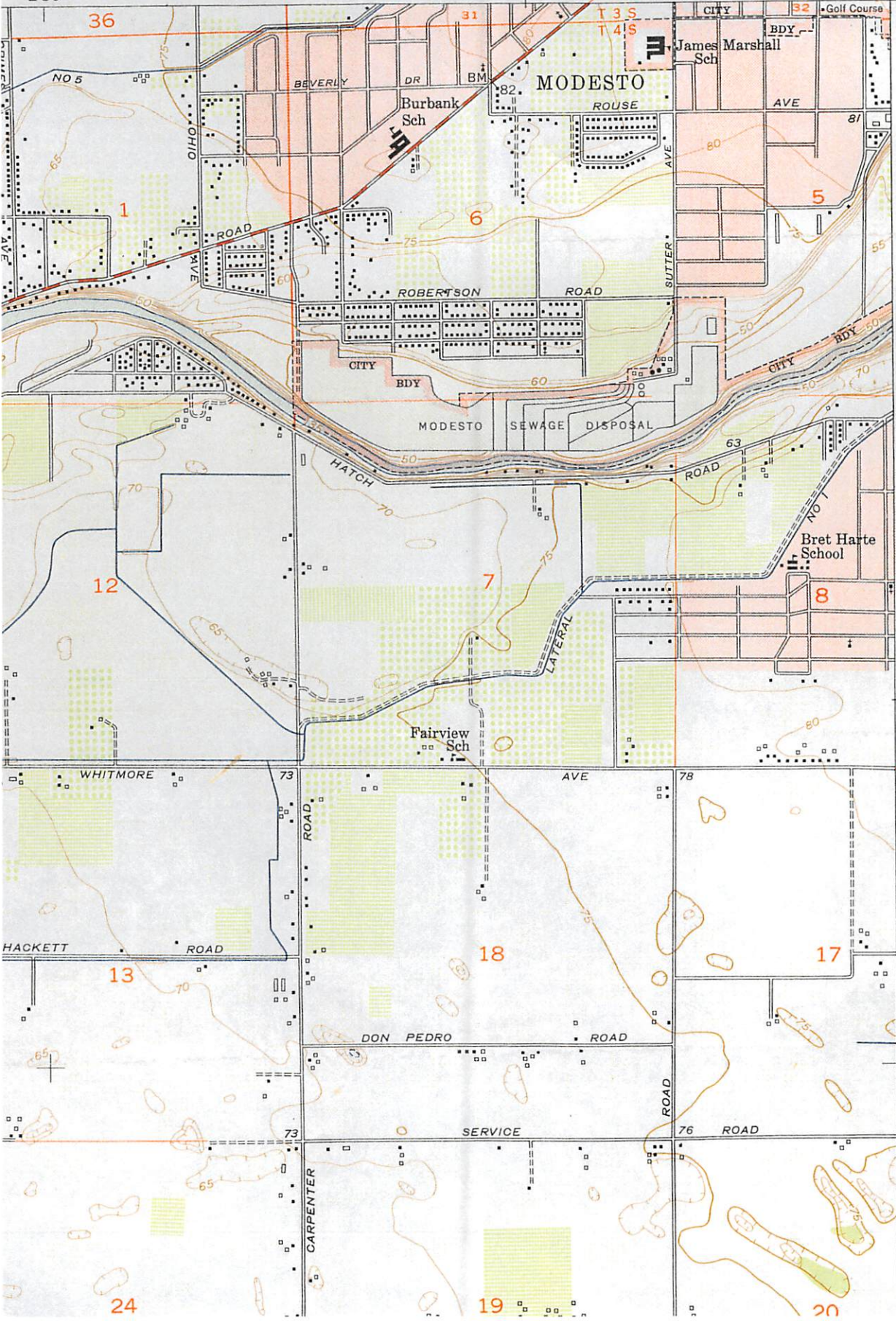
SE/4 MODESTO WEST 15' QUADRANGLE

RIVERBANK 10 MI.

MODESTO HIGH SCHOOL 0.7 MI.

(RIVERBANK)

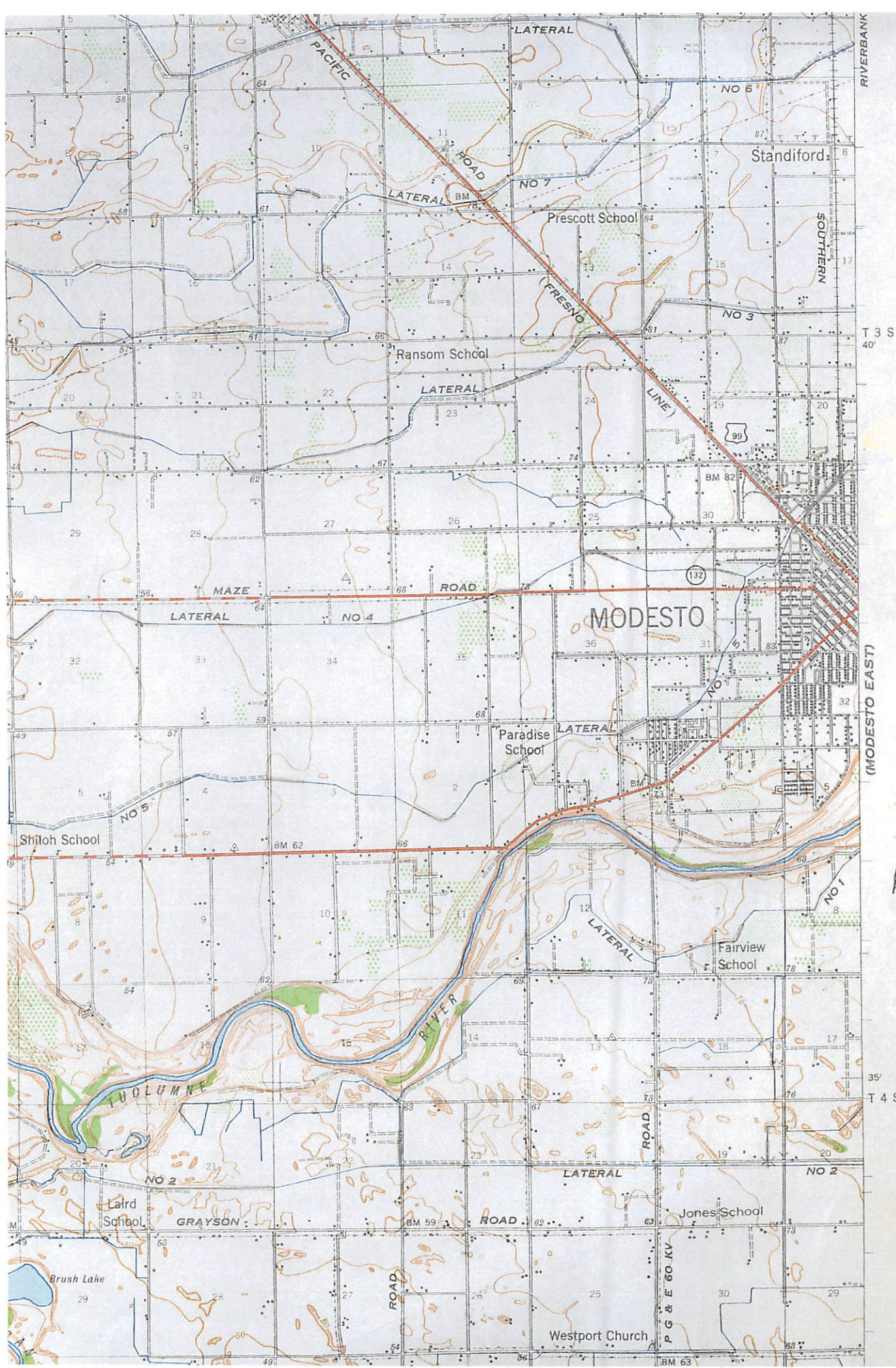
2'30" R. 8 E. R. 9 E. 1 850 000 FEET 121°00' 37°37'30"



400 000 FEET

CERES 2.3 MI.

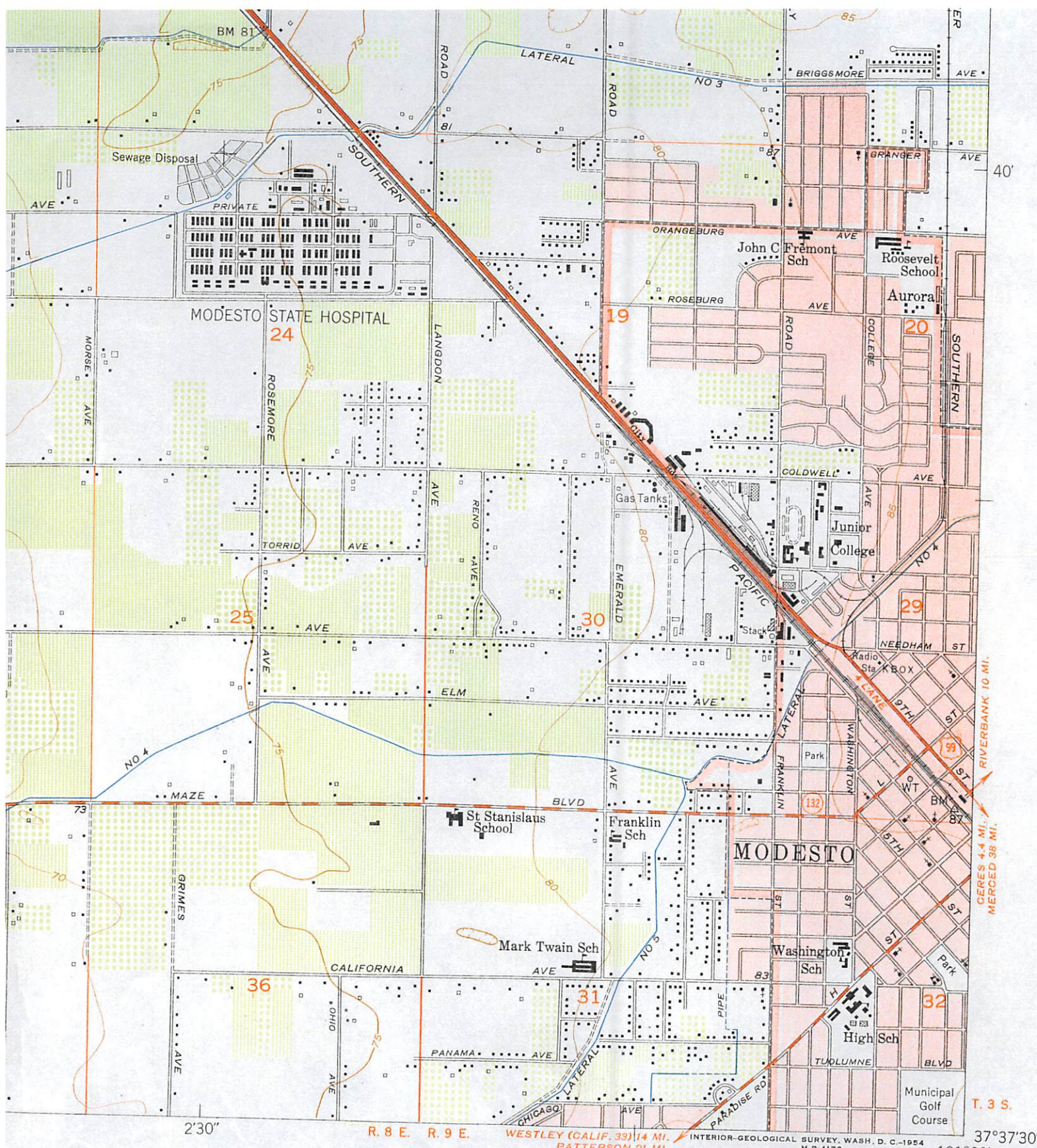
35'



Modesto  
West

1062500

1941

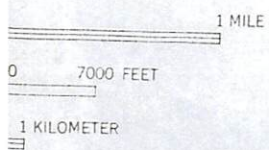


*Historic map  
Add no data*

7.5 (1953)

ROAD CLASSIFICATION

- Heavy-duty 4 LANE 16 LANE Light-duty
- Medium-duty 4 LANE 16 LANE Unimproved dirt
- U. S. Route State Route



QUADRANGLE LOCATION

SALIDA, CALIF.  
NE/4 MODESTO WEST 15' QUADRANGLE

RIVERBANK 10 MI.  
CERES 4.4 MI.  
MERCED 38 MI.

T. 3 S.

(CERES)

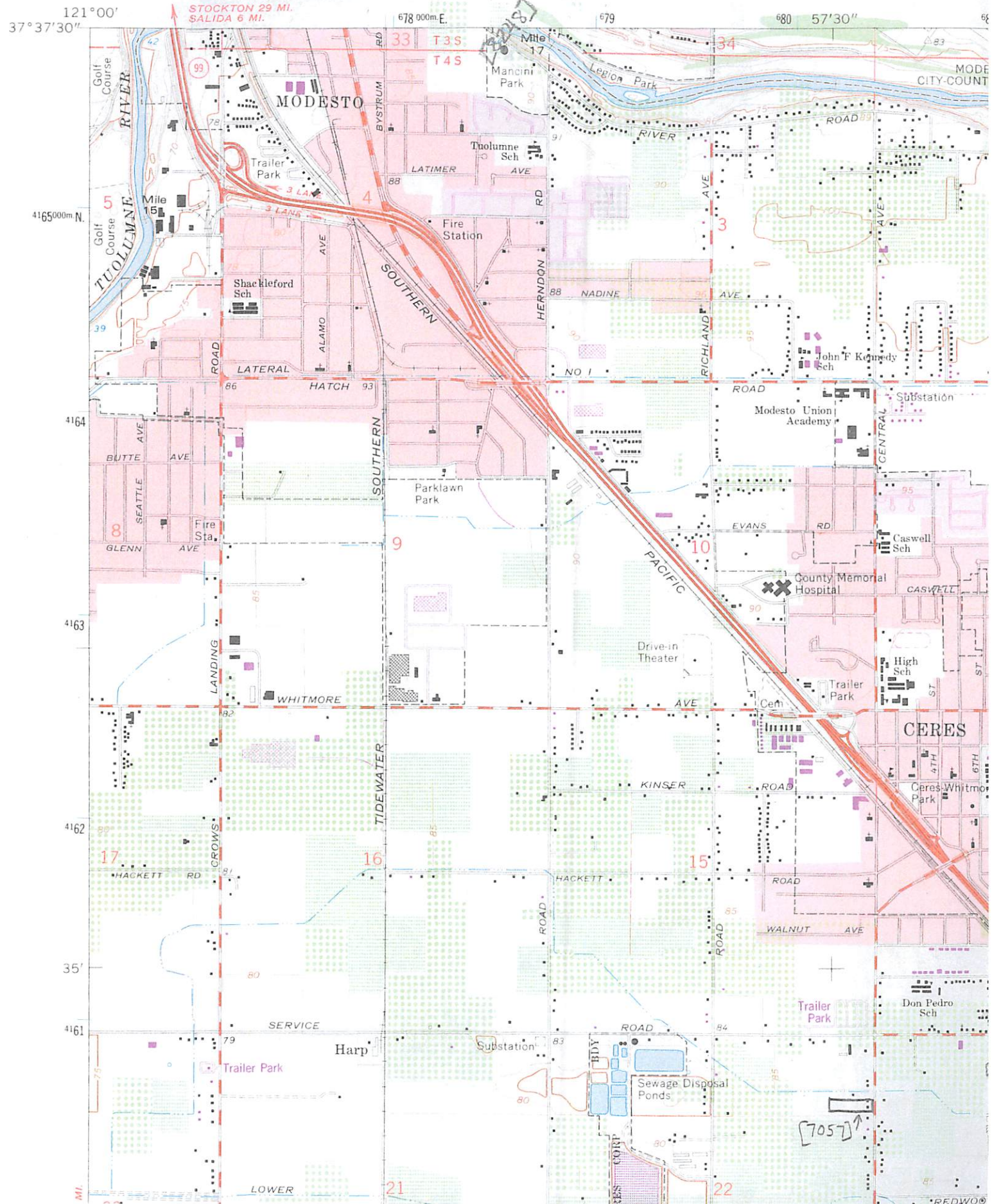
37°37'30"  
121°00'

R. 8 E. R. 9 E. WESTLEY (CALIF. 33) 14 MI. PATTERSON 21 MI. INTERIOR-GEOLOGICAL SURVEY, WASH. D. C.-1954 M R-4172

Ceres 7.5'  
1969

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

1739 II NE  
(SALIDA)



121°00' 37°37'30"

678 000m E. 679 680 57'30"

STOCKTON 29 MI. SALIDA 6 MI.

MODesto

CERES

33 T3S T4S

34

3

4

8

9

10

15

16

17

21

22

SEATTLE AVE

ALAMO AVE

HERNDON RD

RICHLAND AVE

LANDING

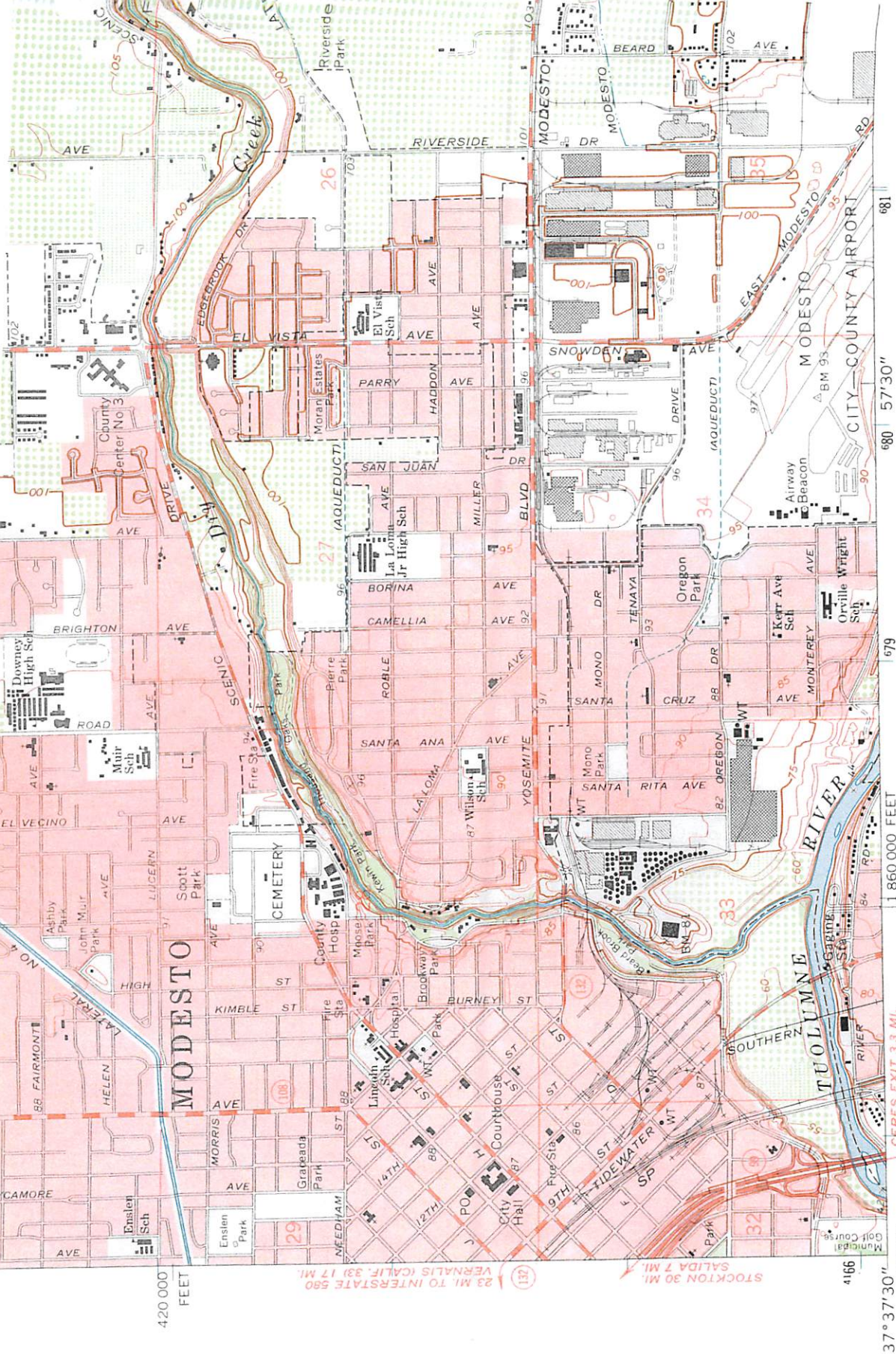
WALNUT AVE

SEWAGE DISPOSAL PONDS

TRAILER PARK

705

REDWOOD



420 000 FEET  
 37° 37' 30" 121° 00'  
 1860 000 FEET  
 679 680 57' 30"

STOCKTON 30 MI.  
 SALIDA 7 MI.  
 23 MI. TO INTERSTATE 580  
 VERNALIS (CALIF. 33 17 MI.)

BRUSH LAKE 1739 II SE

1" = 16' 22 MILLS  
 17" = 302 MILLS

GN MN

1000 0 1000 2000  
 SC  
 CONTOUR DATUM

*Riverbank 7.5' 1969*

Mapped, edited, and published by the Geological Survey  
 Control by USGS and USC&GS  
 Topography by photogrammetric methods from aerial photographs taken 1967. Field checked 1969  
 Supersedes map dated 1914, revised 1953  
 Polyconic projection. 1927 North American datum  
 10,000-foot grid based on California coordinate system, zone 3  
 1000-meter Universal Transverse Mercator grid ticks, zone 10, shown in blue  
 Red tint indicates areas in which only landmark buildings are shown

UTM GRID AND 1969 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET



Appendix E  
**Noise and Vibration Modeling Results**



**Noise Calculations for the River Trunk Project - Pipelines with Trenching**

Construction Equipment 1 (Loaded Trucks)	88 dBA at 50 feet
Construction Equipment 2 (Excavator)	85 dBA at 50 feet

Combined Noise at 50 feet (Ltotal at 50 feet) 89.8 dBA  
 $L_{total} = 10 \log(10^{L1/10} + 10^{L2/10})$

**City of Modesto Noise Threshold Limits and Distances from Project Sites to those Limits for Construction Equipment**

Noise Threshold	Threshold Level - Leq (dBA)	Distance to Leq Threshold from Middle of Project Site (feet)	Notes
Residential Daytime Limit (7 am-7pm)	90	48.7	Stanislaus Code - Property Line Standards don't apply to construction between 7am & 7pm
Nighttime Limit (7pm -7am)	45	8,653.4	FTA Standard.
	75	273.6	Exemptions for public utilities City of Modesto Nighttime Residential, County General Plan Max Daytime

Source: Stanislaus County Code

**Nearest Sensitive Receptors and Approximate Distances from Middle of Nearest Work Area**

Sensitive Receptor	Distance (feet)
(See Figure 14-1)	

**Vibration Source Levels for Construction Equipment (FTA 2006)**

Equipment	PPV at 25 feet	VBA
Loaded Trucks	0.076	86

**Vibration Calculations with Equations for Vibration-Causing Equipment (use of Loaded Trucks) for Pipeline Segments w/ Trenching**

Threshold	Distance (d) to Threshold from Project Site (feet)	Notes
$PPV = PPV_{ref} * (25/d)^{1.5}$	7.1	Building damage threshold (for continuous/frequent intermittent sources)
$L_{vd} = L_{vref} - 30 \log(D/25)$	125.3	Buildings w/ Sensitive Operations, residential, human perception threshold (65)
Lvd	58.2	Institutional threshold (75)
Lvd	73.2	Residences (72)
Lvd	39.6	Theaters/Residences Infrequent Events (80)

Note: Transient sources create a single isolated vibration event, such as blasting. Continuous/frequent

**Noise Calculations for the River Trunk Project - Pipelines with HD and pits & Sutter**

Construction Equipment 1 (pile driver)	101	dBA at 50 feet
Construction Equipment 2 (Loaded Trucks)	88	dBA at 50 feet

Combined Noise at 50 feet (Ltotal at 50 feet) 101.2 dBA  
 $L_{total} = 10 \log(10^{L1/10} + 10^{L2/10})$

**City of Modesto Noise Threshold Limits and Distances from Project Sites to those Limits for Construction Equipment**

Noise Threshold	Threshold Level - Leq (dBA)	Distance to Leq Threshold from Middle of Project Site (feet)	Notes
Residential Daytime Limit (7 am-7pm)	90	181.8	Stanislaus Code - Property Line Standards don't apply to construction between 7am & 7pm. This is FTA standard.
Nighttime Limit (7pm -7am)	45	32,328.8	Exemptions for public utilities
	75	1,022.3	City of Modesto Nighttime Residential, County General Plan Max Daytime

Source: Stanislaus County Code

**Nearest Sensitive Receptors and Approximate Distances from Middle of Nearest Work Area**

Sensitive Receptor	Distance (feet)
Nearest Residences - C Ave.	800

**Vibration Source Levels for Construction Equipment (FTA 2006)**

Equipment	PPV at 25 feet	VBA
Pile Driver	1.518	112
Loaded Trucks	0.076	86

**Vibration Calculations with Equations for Vibration-Causing Equipment (use of pile driver) for Pipelines with HD Pits & Sutter**

Threshold	Distance (d) to Threshold from Project Site (feet)	Notes
$PPV = PPV_{ref} * (25/d)^{1.5}$	52.4	Building damage threshold (for continuous/frequent intermittent sources)
$Lvd = Lv_{ref} - 30 \log(D/25)$	921.7	Buildings w/ Sensitive Operations, residential, human perception threshold (65)
Lvd	427.8	Institutional threshold (75)
Lvd	538.6	Residences (72)
Lvd	291.5	Theaters/Residences Infrequent Events (80)

Note: Transient sources create a single isolated vibration event, such as blasting. Continuous/frequent

**Vibration Calculations with Equations for Vibration-Causing Equipment (use of clam shovel drop) for Pipelines with HD Pits and Sutter**

Threshold	Distance to Threshold from Project Site (feet)	Notes
$PPV = PPV_{ref} * (25/d)^{1.5}$	7.1	Building damage threshold (for continuous/frequent intermittent sources)
$Lvd = Lv_{ref} - 30 \log(D/25)$	125.3	Buildings w/ Sensitive Operations, residential, human perception threshold (65)
Lvd	58.2	Institutional threshold (75)
Lvd	73.2	Residences (72)
Lvd	39.6	Theaters/Residences Infrequent Events (80)

Note: Transient sources create a single isolated vibration event, such as blasting. Continuous/frequent intermittent sources include impact pile drivers, vibratory pile drivers, and vibratory compaction equipment. (CALTRANS 2013).

Distance (feet) from Middle of Project Site to Sensitive Receptors	Noise level dBA	Noise Level Equation: $Leq = EL50 - 20 * \log(D/50)$
10	115.2	
25	107.2	
50	101.2	
100	95.2	
300	85.6	Nearest Residences - Calaveras Ave.
800	77.1	Nearest Residences - C St. (Using just "Pits")

**Noise Calculations for the Shackelford Pump Station**

Construction Equipment 1 (Pile Driver)	101	dBA at 50 feet
Construction Equipment 2 (Paver)	89	dBA at 50 feet

*Combined Noise at 50 feet (Ltotal at 50 feet)* 101.3 dBA  
 $L_{total} = 10 \log(10^{L_1/10} + 10^{L_2/10})$

Distance (feet) from Middle of Project Site to Sensitive Receptors	Noise level dBA	Noise Level Equation: $Leq = EL50 - 20 * \log(D/50)$
10	115.2	
25	107.3	
50	101.3	
190	89.7	
1100	74.4	Nearest Residences - Pueblo Ave.

**City of Modesto Noise Threshold Limits and Distances from Project Sites to those Limits for Construction Equipment**

Noise Threshold	Threshold Level - Leq (dBA)	Distance to Leq Threshold from Middle of Project Site (feet)	Notes
Residential Daytime Limit (7 am-7pm)	90	182.9	Stanislaus Code - Property Line Standards don't apply to construction between 7am & 7pm
Nighttime Limit (7pm -7am)	45	32,527.9	FTA Standard
	75	1,028.6	Exemptions for public utilities City of Modesto Nighttime Residential, County General Plan Max Daytime

Source: Stanislaus County Code

**Nearest Sensitive Receptors and Approximate Distances from Middle of Nearest Work Area**

Sensitive Receptor	Distance (feet)
Nearest Residences - Pueblo Ave.	1,100

**Vibration Source Levels for Construction Equipment (FTA 2006)**

Equipment	PPV at 25 feet	VBA
Pile Driver	1.518	112
Loaded Trucks	0.076	86

**Vibration Calculations with Equations for Vibration-Causing Equipment (use of pile driver) for Shackelford Pump Station Site**

Threshold	Distance (d) to Threshold from Project Site (feet)	Notes
$PPV = PPV_{ref} * (25/d)^{1.5}$	135.7	Building damage threshold (for continuous/frequent intermittent sources)
$L_{vd} = L_{vref} - 30 \log(D/25)$	921.7	Buildings w/ Sensitive Operations, residential, human perception threshold (65)
Lvd	427.8	Institutional threshold (75)
Lvd	538.6	Residences (72)
Lvd	291.5	Theaters/Residences Infrequent Events (80)

Note: Transient sources create a single isolated vibration event, such as blasting. Continuous/frequent intermittent sources include impact pile drivers, vibratory pile drivers, and vibratory compaction equipment. (CALTRANS 2013).

**Vibration Calculations with Equations for Vibration-Causing Equipment (use of loaded trucks) for Shackelford Pump Station Site**

Threshold	Distance to Threshold from Project Site (feet)	Notes
$PPV = PPV_{ref} * (25/d)^{1.5}$	18.4	Building damage threshold (for continuous/frequent intermittent sources)
$L_{vd} = L_{vref} - 30 \log(D/25)$	125.3	Buildings w/ Sensitive Operations, residential, human perception threshold (65)
Lvd	58.2	Institutional threshold (75)
Lvd	73.2	Residences (72)
Lvd	39.6	Theaters/Residences Infrequent Events (80)

Note: Transient sources create a single isolated vibration event, such as blasting. Continuous/frequent intermittent sources include impact pile drivers, vibratory pile drivers, and vibratory compaction equipment. (CALTRANS 2013).

**Noise Calculations for the River Trunk Project - River Trunk Pump Station**

Construction Equipment 1 (pile driver)	101 dBA at 50 feet
Construction Equipment 2 (Crane w/ Clam Shovel)	93 dBA at 50 feet

Combined Noise at 50 feet (Ltotal at 50 feet) 101.6 dBA  
 $L_{total} = 10 \log(10^{L1/10} + 10^{L2/10})$

Distance (feet) from Middle of Project Site to Sensitive Receptors	Noise level dBA	Noise Level Equation: $Leq = EL50 - 20 * \log(D/50)$
10	115.6	
25	107.7	
100	95.6	
250	87.7	
800	77.6	C St.

**City of Modesto Noise Threshold Limits and Distances from Project Sites to those Limits for Construction Equipment**

Noise Threshold	Threshold Level - Leq (dBA)	Distance to Leq Threshold from Middle of Project Site (feet)	Notes
Residential Daytime Limit (7 am-7pm)	90	190.9	Stanislaus Code - Property Line Standards don't apply to construction between 7am & 7pm
Nighttime Limit (7pm -7am)	45	33,956.0	Exemptions for public utilities
	75	1,073.8	City of Modesto Nighttime Residential, County General Plan Max Daytime
	90	190.9	FTA Standard

Source: Stanislaus County Code

**Nearest Sensitive Receptors and Approximate Distances from Middle of Nearest Work Area**

Sensitive Receptor	Distance (feet)
Nearest Residences - C St.	800

**Vibration Source Levels for Construction Equipment (FTA 2006)**

Equipment	PPV at 25 feet	VBA
Pile Driver	1.518	112
Clam shovel drop	0.202	94

**Vibration Calculations with Equations for Vibration-Causing Equipment (use of pile driver) for River Trunk Pump Station Site**

Threshold	Distance (d) to Threshold from Project Site (feet)	Notes
$PPV = PPV_{ref} * (25/d)^{1.5}$	135.7	Building damage threshold (0.12 in/sec)
$Lvd = Lv_{ref} - 30 \log(D/25)$	921.7	Buildings w/ Sensitive Operations, residential, human perception threshold (65)
Lvd	427.8	Institutional threshold (75)
Lvd	538.6	Residences (72)
Lvd	291.5	Theaters/Residences Infrequent Events (80)

Note: Transient sources create a single isolated vibration event, such as blasting. Continuous/frequent

**Vibration Calculations with Equations for Vibration-Causing Equipment (use of clam shovel drop) for River Trunk Pump Station Site**

Threshold	Distance to Threshold from Project Site (feet)	Notes
$PPV = PPV_{ref} * (25/d)^{1.5}$	35.4	Building damage threshold (for continuous/frequent intermittent sources)
$Lvd = Lv_{ref} - 30 \log(D/25)$	231.5	Buildings w/ Sensitive Operations, residential, human perception threshold (65)
Lvd	107.5	Institutional threshold (75)
Lvd	135.3	Residences (72)
Lvd	73.2	Theaters/Residences Infrequent Events (80)

Note: Transient sources create a single isolated vibration event, such as blasting. Continuous/frequent intermittent sources include impact pile drivers, vibratory pile drivers, and vibratory compaction equipment. (CALTRANS 2013).

Name	dBA at 50'	PPV at 25	Lv at 25	Alt-Name/Type
Loader	85			
Excavator	85			
Dumptruck	84			
Crane w/ Clam Shell	93	0.202	94	Clam Shovel (Dropping)
Pile driver	101	1.518	112	Pile Drive (Impact)
Scraper	89			
Pickup trucks	75			
Paver	89			
Microtunneling machine	82			Horizontal Boring Hydraulic Jack
Trucks (Loaded)	88	0.076	86	loaded trucks
Scissor lift	85			Man lift
Concrete truck	85			concrete mixer
Compactor	82			plate compactor
Secant pile wall drill rig	84			Drill rig truck

Values from FHWA 2017 or FTA 2006





Appendix F

**Tribal Cultural Resources Communication**





June 8, 2016

Lois Martin, Chairperson  
Southern Sierra Miwuk Nation  
P.O. Box 186  
Mariposa, CA 95338

Subject: City of Modesto Utilities Department Wastewater Master Plan Update Environmental Impact Report

Dear Chairperson Martin,

The City of Modesto (City) Utilities Department will serve as lead agency under the California Environmental Quality Act (CEQA) in preparing an Environmental Impact Report (EIR) for the Wastewater Master Plan (WWMP) Update (Program or Proposed Project) EIR. A Notice of Preparation will be released, as required by California Code of Regulations title 14, section 15000 et seq. The City periodically reevaluates its wastewater service system through development of a wastewater master plan, which reviews existing and planned sanitary sewer infrastructure relative to the projected urban growth of the City. The City has made a number of improvements that were identified in the 2007 Wastewater Master Plan but still faces challenges associated with aging infrastructure, providing reliability of critical facilities and, for future growth, providing increased capacity and extending infrastructure when it is needed.

The Program would consist of numerous Capital Improvement Projects (CIPs) collectively intended for system-wide implementation needed to ensure adequate wastewater infrastructure and services are available to meet wastewater demand requirements under both existing and future developed conditions. The Program all incorporated areas of Modesto, a portion of north Ceres, the unincorporated community of Empire, and unincorporated "islands" in Stanislaus County that are served by agreement with the City (Figure 1). The Sutter Avenue Primary Treatment Plant (Primary Plant or Sutter Plant) is in the southwestern portion of Modesto adjacent to the north bank of the Tuolumne River. The Jennings Road Secondary Treatment Plant (Secondary Plant or Jennings Plant) is approximately 6.5 miles southwest of the Modesto urban area and located on City-owned land on the eastern side of the San Joaquin River. These areas are shown in Figure 2.

The Program involves several improvements to the City's collection system, such as replacement or construction of new trunk sewers or pump stations, construction of new parallel sewers, and removal of storm drain cross connections. Proposed improvements at the Sutter Plant include, but are not limited to, upgrading the influent pump station to increase its hydraulic capacity to convey peak wet weather flows, improvements to the headworks facilities, and decommissioning of primary treatment and solids handling facilities. The Program also includes outfall pipeline improvements, such as replacement of

existing pipe crossings under the Tuolumne River and construction of a new third outfall pipeline from the Sutter Plant to the Jennings Plant. At the Jennings Plant, the Program includes upgrades to the secondary and Cannery Segregation treatment facilities, and construction of new primary treatment and solids handling facilities.

Most of the proposed CIPs would be implemented within the City's sewer service area, the Sutter Plant, and the Jennings Plant. The Program also proposes a third outfall pipeline connecting the Sutter and Jennings Plants (Figure 3). The exact locations of some of the proposed new facilities (e.g., collection system improvements and outfall pipeline) have yet to be finalized; where tentative sites have been identified, these locations will be identified in the Draft EIR.

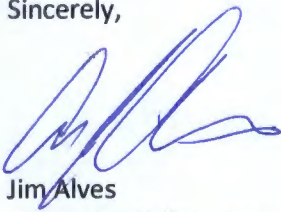
Pursuant to Public Resources Code Section 21080.3.1 *et seq.*, the City of Modesto Utilities Department is notifying you of our intent to consider the Proposed Project. To initiate formal consultation with the City regarding any potential impacts of this Proposed Project on tribal cultural resources, Public Resources Code Section 21080.3.1(e) requires that you contact us within 30 days from your receipt of this letter. If you wish to request the consultation, or if you have any questions, please contact:

Jim Alves  
Associate Civil Engineer  
City of Modesto Utilities Department  
1010 Tenth Street, Suite 4600  
Modesto, CA 95353  
Phone: (209) 571-5557  
Email: [jalves@modestogov.com](mailto:jalves@modestogov.com)

If you do not contact us within 30 days following receipt of this letter, the City of Modesto Utilities Department will proceed with processing the above referenced application with the assumption that the project will not have a potential effect on tribal cultural resources. If consultation is requested, please provide the name and contact information of the designated lead contact person as part of your request. The City will contact the designated person to set a meeting date to begin consultation within 30 days of our receipt of your request.

More detailed information about this project is available, at your request. Thank you for giving this matter your prompt attention.

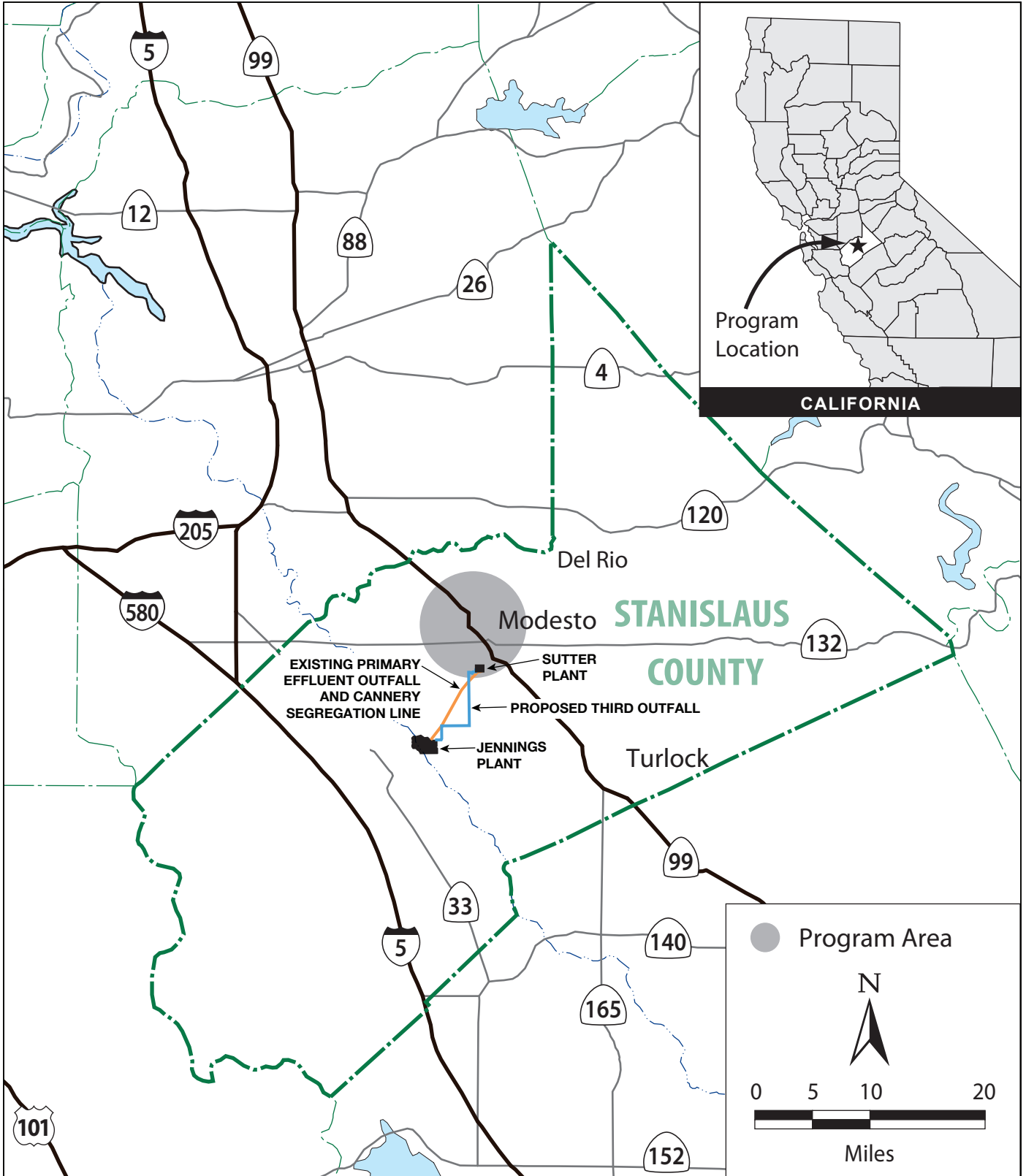
Sincerely,



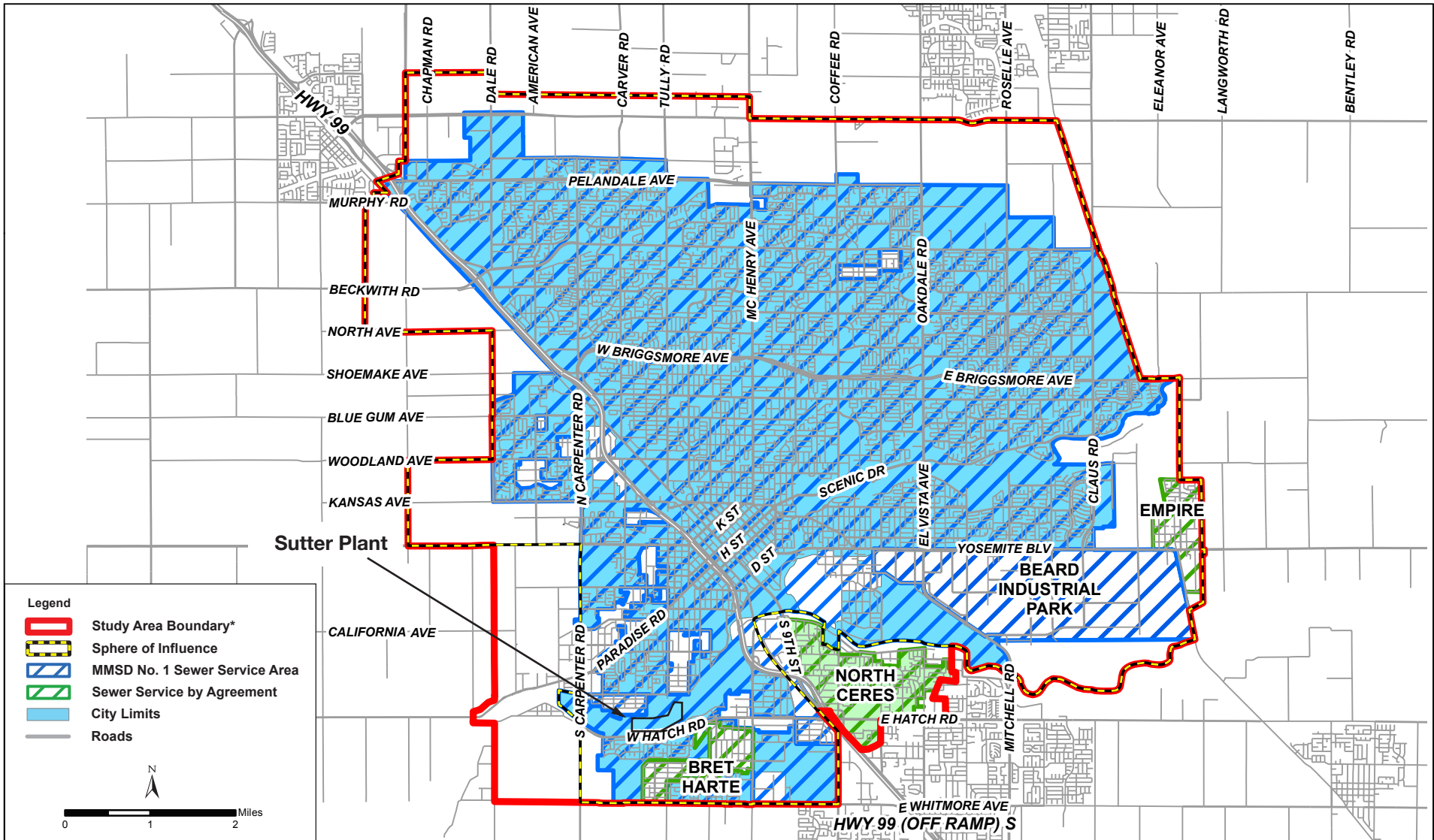
Jim Alves  
Associate Civil Engineer  
City of Modesto Utilities Department  
2647248.1

Attachments

2667716.1



**Figure 1  
Project Location**

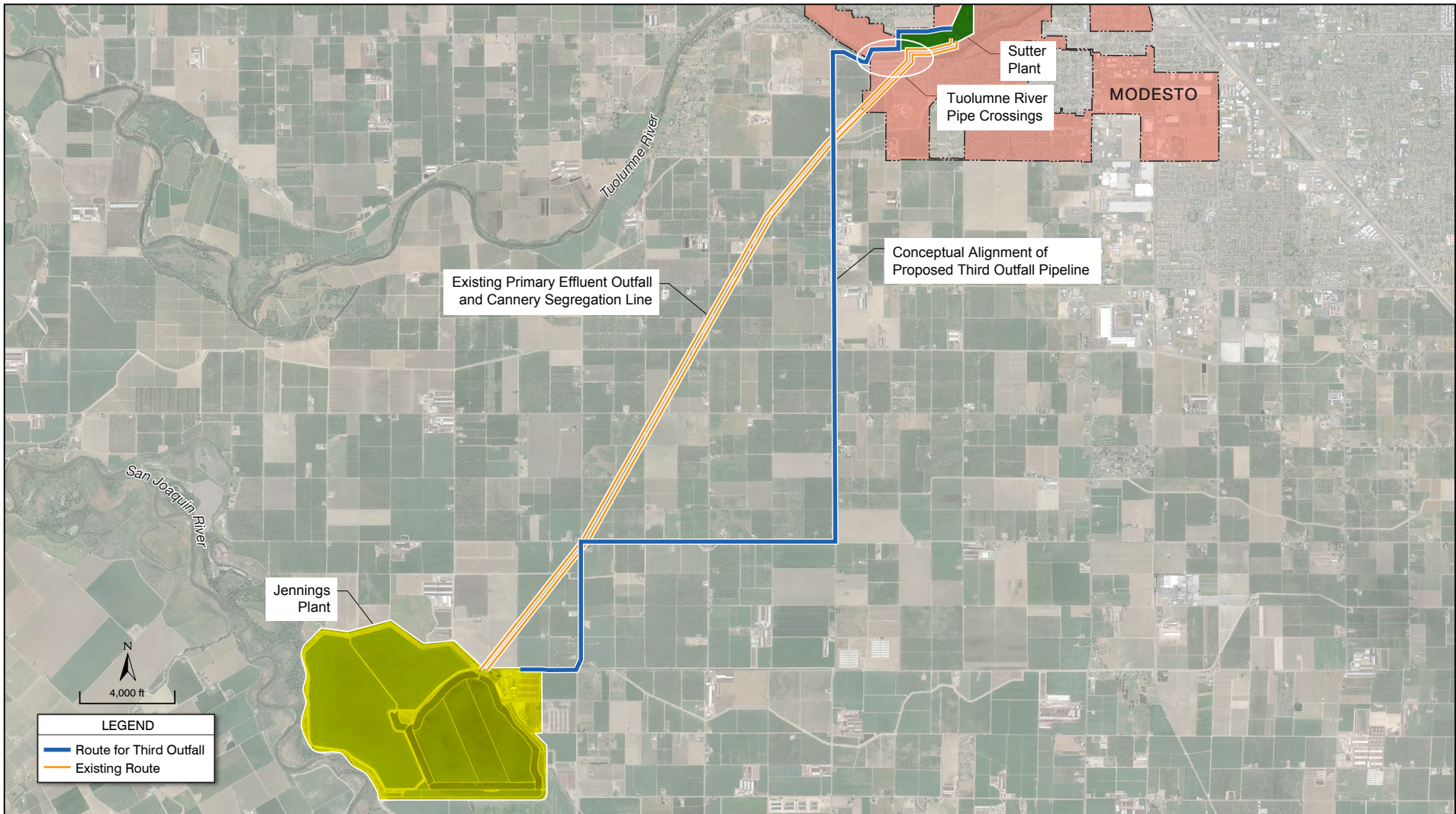


**Figure 2**  
**Wastewater Master Plan Sewer Service Study Area**

Source: City of Modesto, 2016

Prepared by:





**Figure 3**  
**Location of Wastewater Treatment Plants**

Source: Carollo, 2016

Prepared by:



**City of Modesto Wastewater Master Plan Update**



June 8, 2016

Katherine Erolinda Perez, MLD  
North Valley Yokuts Tribe  
990 North Fine Road  
Linden, CA 95236

Subject: City of Modesto Utilities Department Wastewater Master Plan Update Environmental Impact Report

Dear Ms. Perez,

The City of Modesto (City) Utilities Department will serve as lead agency under the California Environmental Quality Act (CEQA) in preparing an Environmental Impact Report (EIR) for the Wastewater Master Plan (WWMP) Update (Program or Proposed Project) EIR. A Notice of Preparation will be released, as required by California Code of Regulations title 14, section 15000 et seq. The City periodically reevaluates its wastewater service system through development of a wastewater master plan, which reviews existing and planned sanitary sewer infrastructure relative to the projected urban growth of the City. The City has made a number of improvements that were identified in the 2007 Wastewater Master Plan but still faces challenges associated with aging infrastructure, providing reliability of critical facilities and, for future growth, providing increased capacity and extending infrastructure when it is needed.

The Program would consist of numerous Capital Improvement Projects (CIPs) collectively intended for system-wide implementation needed to ensure adequate wastewater infrastructure and services are available to meet wastewater demand requirements under both existing and future developed conditions. The Program all incorporated areas of Modesto, a portion of north Ceres, the unincorporated community of Empire, and unincorporated "islands" in Stanislaus County that are served by agreement with the City (Figure 1). The Sutter Avenue Primary Treatment Plant (Primary Plant or Sutter Plant) is in the southwestern portion of Modesto adjacent to the north bank of the Tuolumne River. The Jennings Road Secondary Treatment Plant (Secondary Plant or Jennings Plant) is approximately 6.5 miles southwest of the Modesto urban area and located on City-owned land on the eastern side of the San Joaquin River. These areas are shown in Figure 2.

The Program involves several improvements to the City's collection system, such as replacement or construction of new trunk sewers or pump stations, construction of new parallel sewers, and removal of storm drain cross connections. Proposed improvements at the Sutter Plant include, but are not limited to, upgrading the influent pump station to increase its hydraulic capacity to convey peak wet weather flows, improvements to the headworks facilities, and decommissioning of primary treatment and solids handling facilities. The Program also includes outfall pipeline improvements, such as replacement of



existing pipe crossings under the Tuolumne River and construction of a new third outfall pipeline from the Sutter Plant to the Jennings Plant. At the Jennings Plant, the Program includes upgrades to the secondary and Cannery Segregation treatment facilities, and construction of new primary treatment and solids handling facilities.

Most of the proposed CIPs would be implemented within the City's sewer service area, the Sutter Plant, and the Jennings Plant. The Program also proposes a third outfall pipeline connecting the Sutter and Jennings Plants (Figure 3). The exact locations of some of the proposed new facilities (e.g., collection system improvements and outfall pipeline) have yet to be finalized; where tentative sites have been identified, these locations will be identified in the Draft EIR.

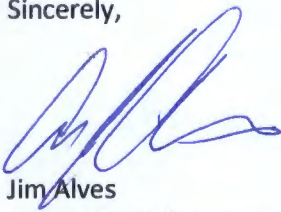
Pursuant to Public Resources Code Section 21080.3.1 *et seq.*, the City of Modesto Utilities Department is notifying you of our intent to consider the Proposed Project. To initiate formal consultation with the City regarding any potential impacts of this Proposed Project on tribal cultural resources, Public Resources Code Section 21080.3.1(e) requires that you contact us within 30 days from your receipt of this letter. If you wish to request the consultation, or if you have any questions, please contact:

Jim Alves  
Associate Civil Engineer  
City of Modesto Utilities Department  
1010 Tenth Street, Suite 4600  
Modesto, CA 95353  
Phone: (209) 571-5557  
Email: [jalves@modestogov.com](mailto:jalves@modestogov.com)

If you do not contact us within 30 days following receipt of this letter, the City of Modesto Utilities Department will proceed with processing the above referenced application with the assumption that the project will not have a potential effect on tribal cultural resources. If consultation is requested, please provide the name and contact information of the designated lead contact person as part of your request. The City will contact the designated person to set a meeting date to begin consultation within 30 days of our receipt of your request.

More detailed information about this project is available, at your request. Thank you for giving this matter your prompt attention.

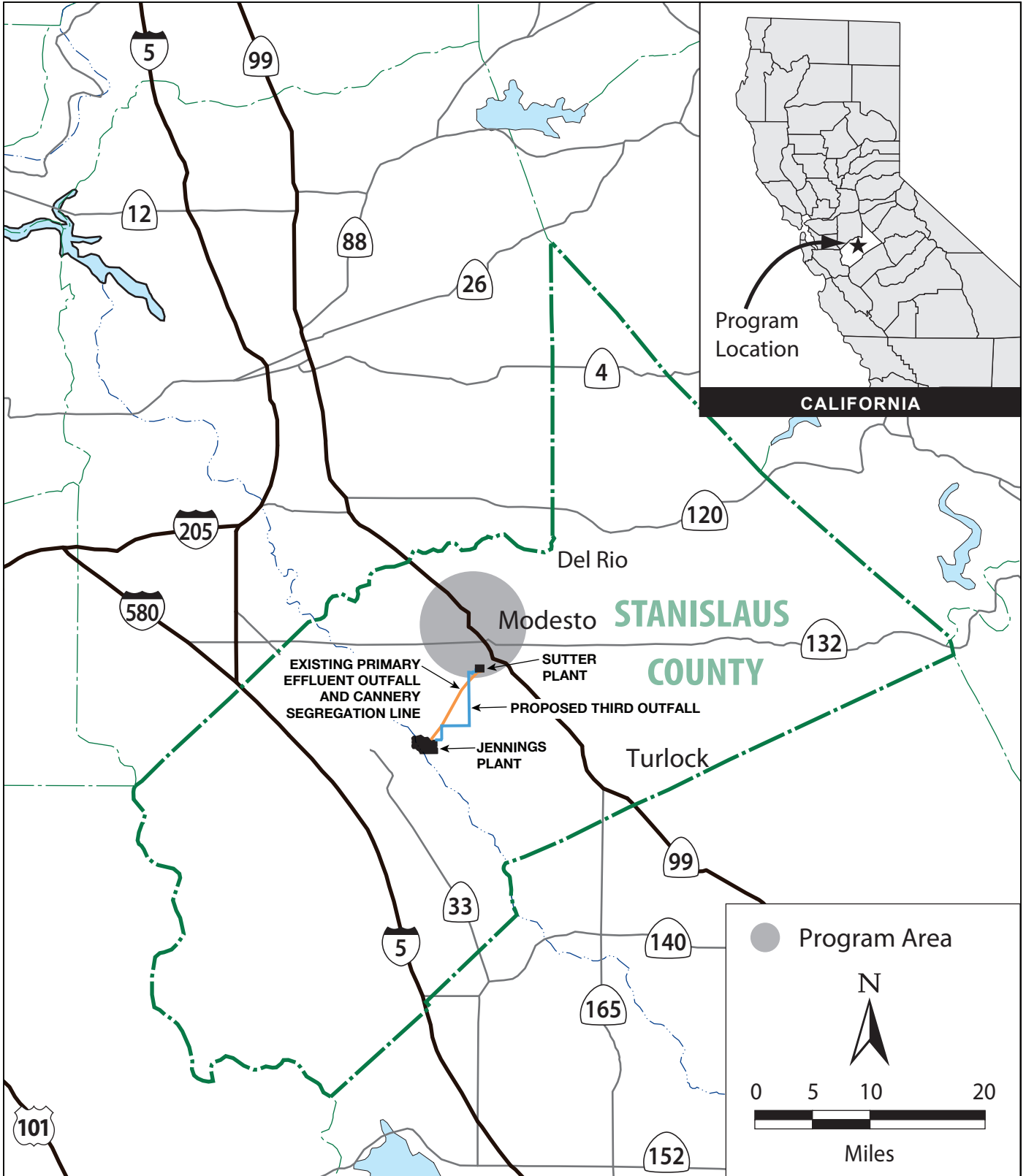
Sincerely,



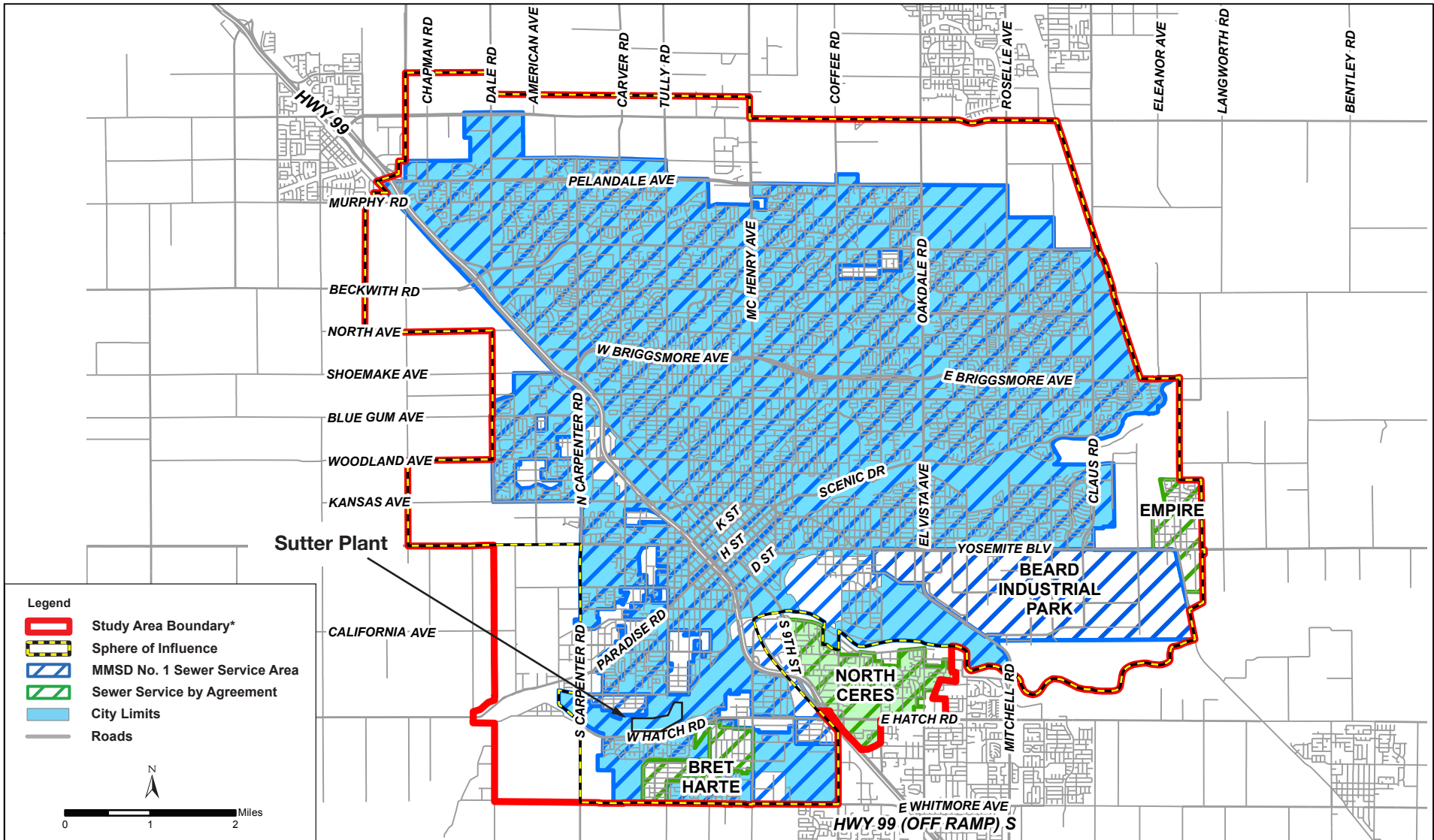
Jim Alves  
Associate Civil Engineer  
City of Modesto Utilities Department  
2647248.1

Attachments

2667716.1



**Figure 1  
Project Location**

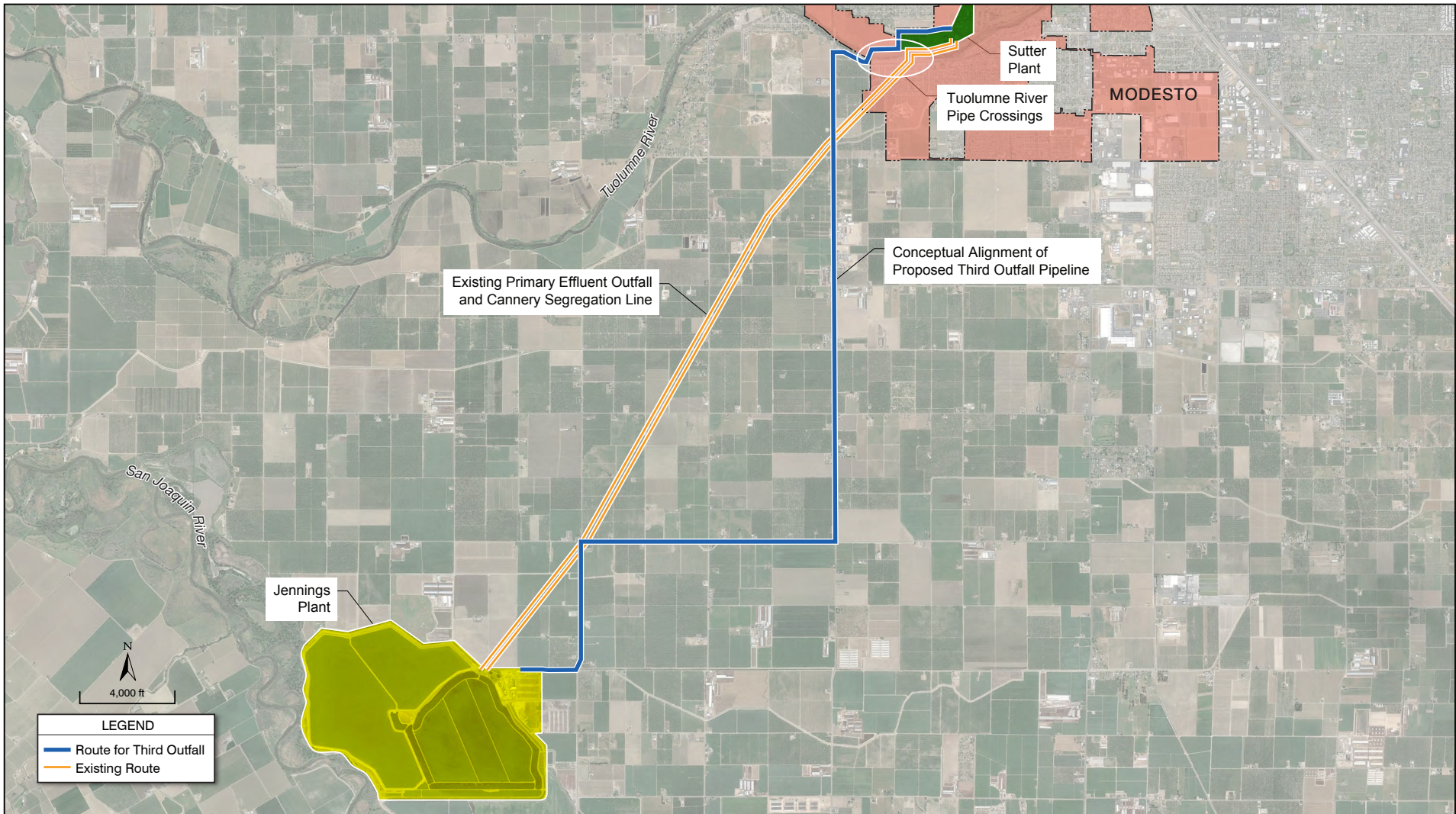


**Figure 2**  
**Wastewater Master Plan Sewer Service Study Area**

Source: City of Modesto, 2016

Prepared by:





**Figure 3**  
**Location of Wastewater Treatment Plants**

Source: Carollo, 2016

Prepared by:



**City of Modesto Wastewater Master Plan Update**



June 8, 2016

Neil Peyron, Chairperson  
Tule River Indian Tribe  
P.O. Box 589  
Porterville, CA 93258

Subject: City of Modesto Utilities Department Wastewater Master Plan Update Environmental Impact Report

Dear Chairperson Peyron,

The City of Modesto (City) Utilities Department will serve as lead agency under the California Environmental Quality Act (CEQA) in preparing an Environmental Impact Report (EIR) for the Wastewater Master Plan (WWMP) Update (Program or Proposed Project) EIR. A Notice of Preparation will be released, as required by California Code of Regulations title 14, section 15000 et seq. The City periodically reevaluates its wastewater service system through development of a wastewater master plan, which reviews existing and planned sanitary sewer infrastructure relative to the projected urban growth of the City. The City has made a number of improvements that were identified in the 2007 Wastewater Master Plan but still faces challenges associated with aging infrastructure, providing reliability of critical facilities and, for future growth, providing increased capacity and extending infrastructure when it is needed.

The Program would consist of numerous Capital Improvement Projects (CIPs) collectively intended for system-wide implementation needed to ensure adequate wastewater infrastructure and services are available to meet wastewater demand requirements under both existing and future developed conditions. The Program all incorporated areas of Modesto, a portion of north Ceres, the unincorporated community of Empire, and unincorporated "islands" in Stanislaus County that are served by agreement with the City (Figure 1). The Sutter Avenue Primary Treatment Plant (Primary Plant or Sutter Plant) is in the southwestern portion of Modesto adjacent to the north bank of the Tuolumne River. The Jennings Road Secondary Treatment Plant (Secondary Plant or Jennings Plant) is approximately 6.5 miles southwest of the Modesto urban area and located on City-owned land on the eastern side of the San Joaquin River. These areas are shown in Figure 2.

The Program involves several improvements to the City's collection system, such as replacement or construction of new trunk sewers or pump stations, construction of new parallel sewers, and removal of storm drain cross connections. Proposed improvements at the Sutter Plant include, but are not limited to, upgrading the influent pump station to increase its hydraulic capacity to convey peak wet weather flows, improvements to the headworks facilities, and decommissioning of primary treatment and solids handling facilities. The Program also includes outfall pipeline improvements, such as replacement of

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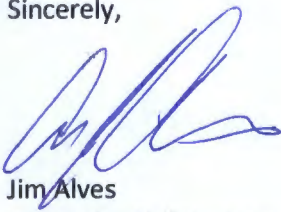
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Associate Civil Engineer  
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1010 Tenth Street, Suite 4600  
Modesto, CA 95353  
Phone: (209) 571-5557  
Email: [jalves@modestogov.com](mailto:jalves@modestogov.com)

If you do not contact us within 30 days following receipt of this letter, the City of Modesto Utilities Department will proceed with processing the above referenced application with the assumption that the project will not have a potential effect on tribal cultural resources. If consultation is requested, please provide the name and contact information of the designated lead contact person as part of your request. The City will contact the designated person to set a meeting date to begin consultation within 30 days of our receipt of your request.

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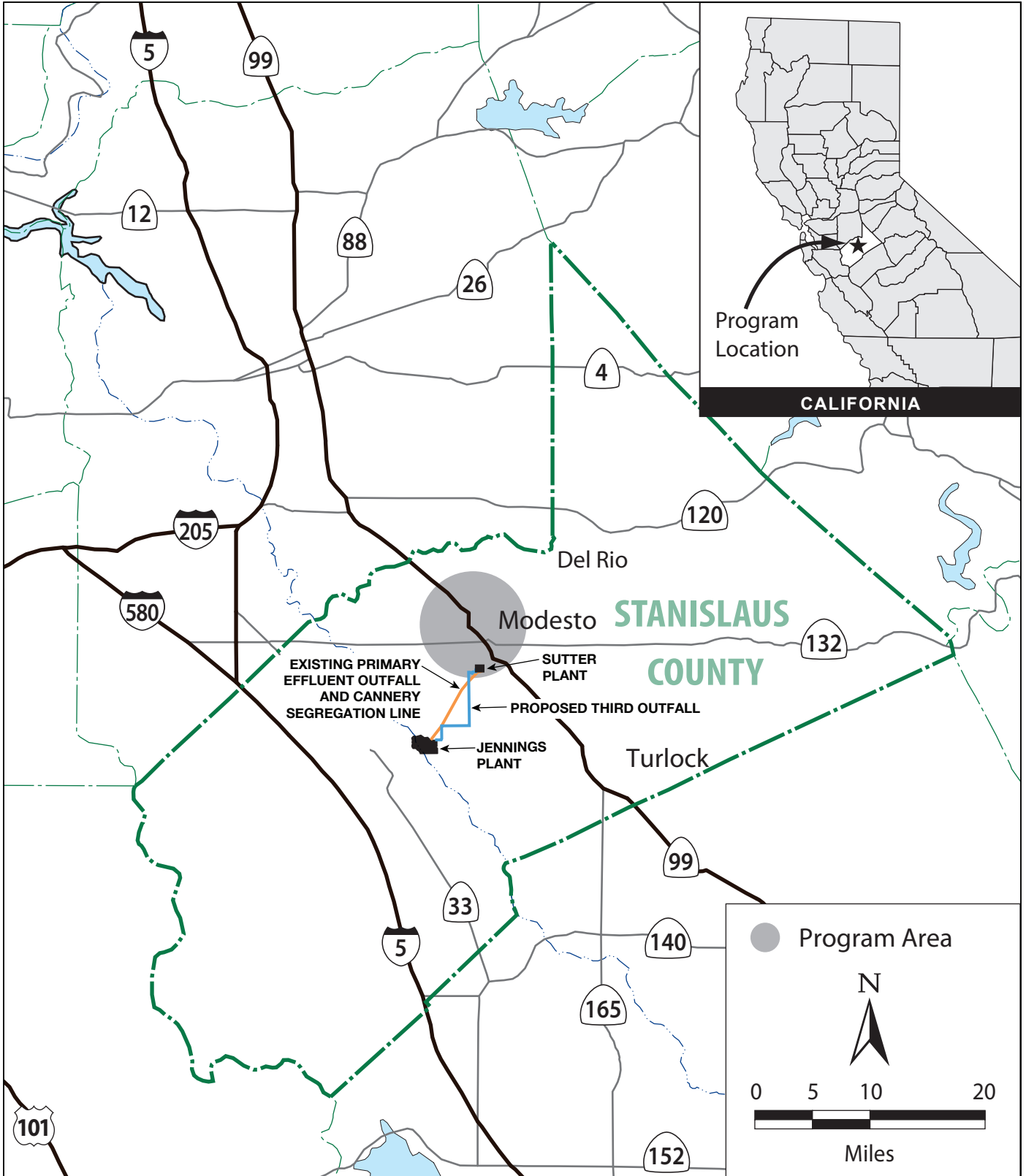
Sincerely,



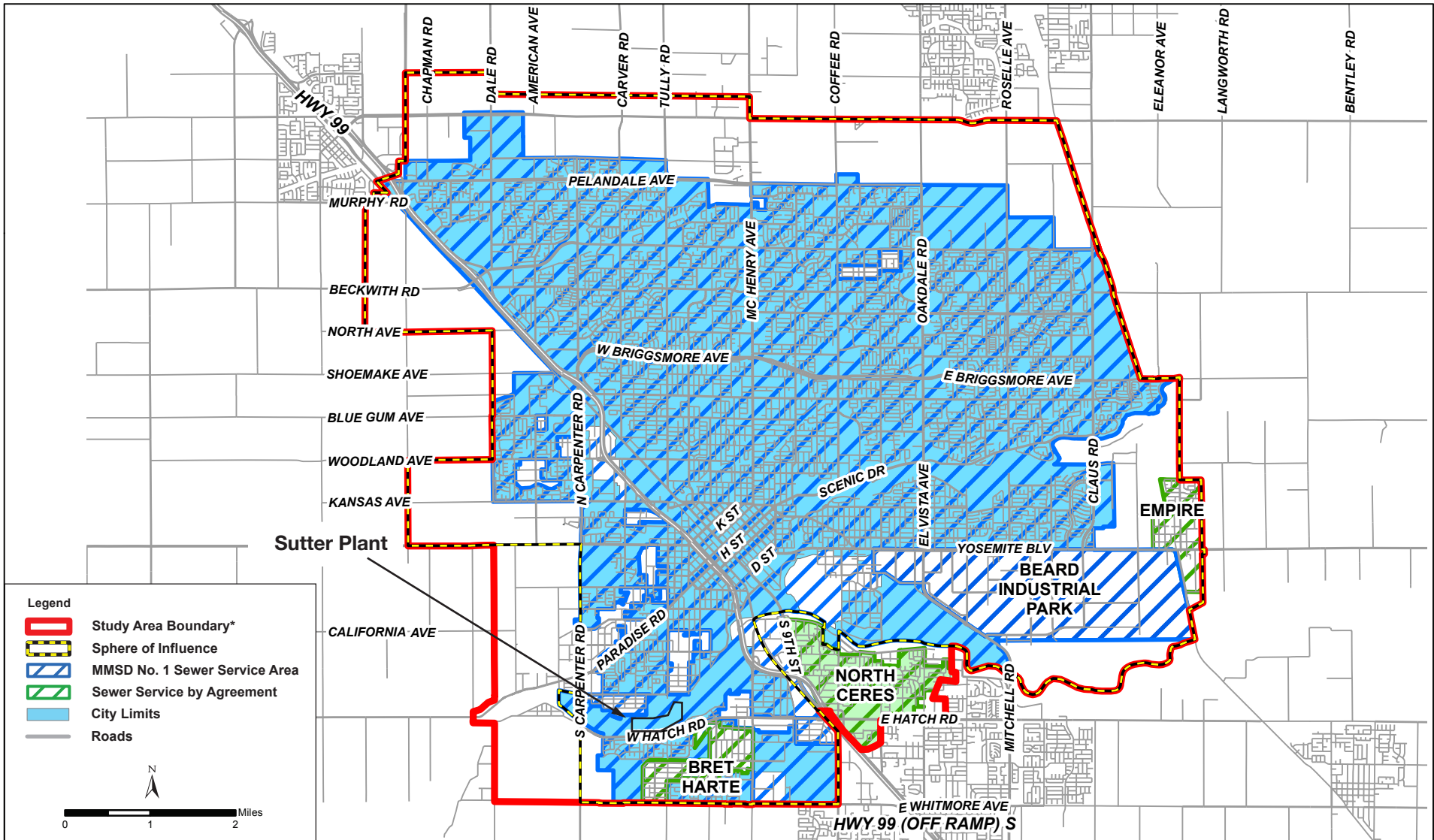
Jim Alves  
Associate Civil Engineer  
City of Modesto Utilities Department  
2647248.1

Attachments

2667716.1



**Figure 1  
Project Location**



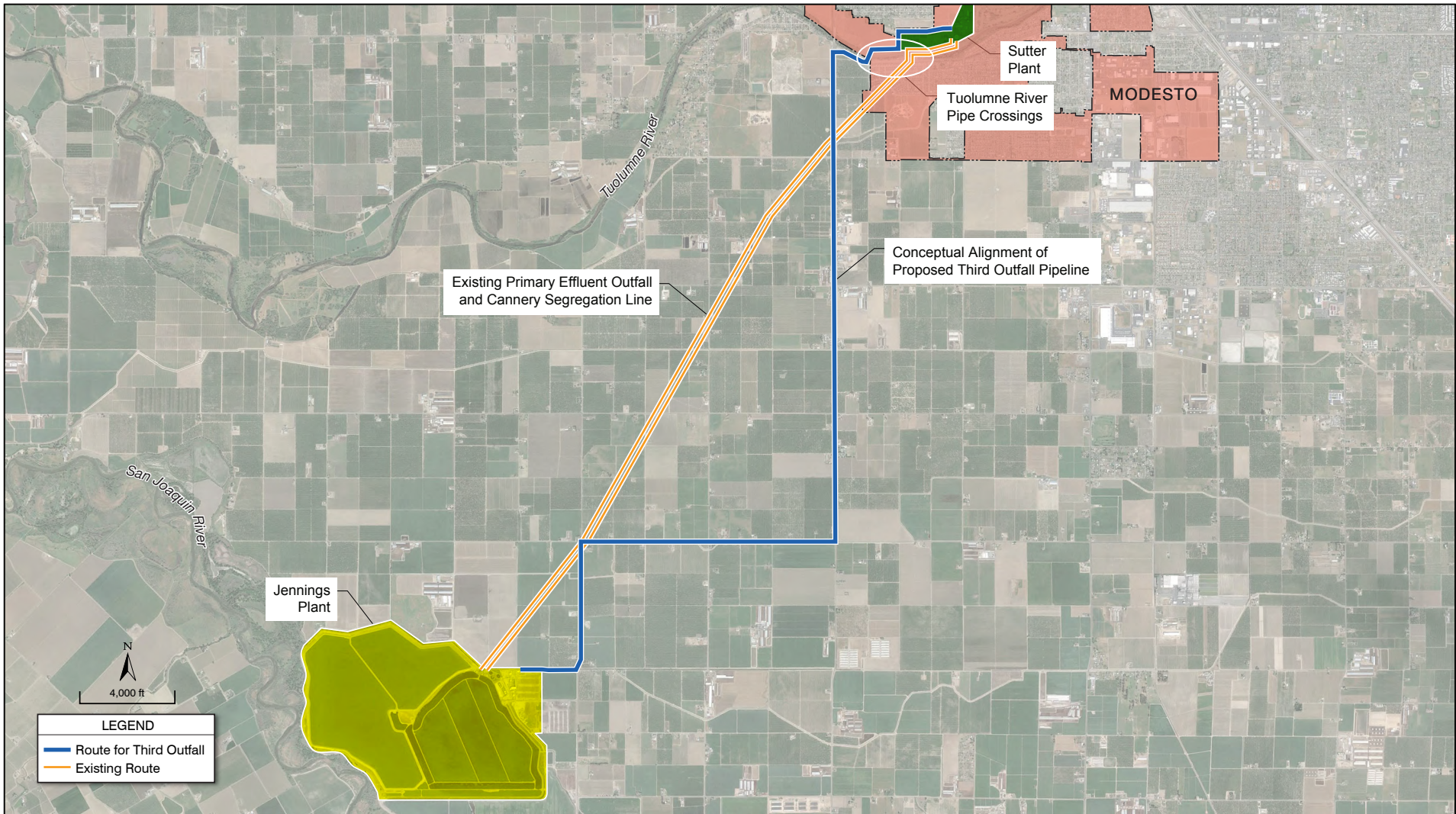
**Figure 2**  
**Wastewater Master Plan Sewer Service Study Area**

Source: City of Modesto, 2016

Prepared by:







**Figure 3**  
**Location of Wastewater Treatment Plants**

Source: Carollo, 2016

Prepared by:





Appendix G  
**Mitigation Monitoring and Reporting Program**



## MITIGATION MONITORING AND REPORTING PROGRAM SUMMARY TABLE

The following mitigation monitoring and reporting program (MMRP) summary table includes the mitigation measures identified in the City of Modesto (City) Wastewater Master Plan Draft Environmental Impact Report (DEIR). For each mitigation measure, this table identifies monitoring and reporting actions that shall be carried out and the monitoring schedule. This table also includes a column where responsible parties can check off monitoring and reporting actions as they are completed. It is the responsibility of the Contractor to ensure that actions required for all mitigation measures listed herein are included in the project plans and specifications. It is the responsibility of the City to review and confirm that all of the mitigation measure actions described herein are in the project plans and specifications.

Mitigation measures that are applicable to specific types of program-level improvements are indicated in the table. Mitigation measures that are applicable to the River Trunk Realignment Project are indicated with a "X" in the table.

### ***Acronyms and Abbreviations***

a.m.	ante meridiem
ANSI	American National Standards Institute
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CIP	capital improvement project
City	City of Modesto
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CWA	Clean Water Act
dba	A-weighted decibel scale
EIR	environmental impact report
GPS	global positioning system
MBTA	Migratory Bird Treaty Act
MLD	Most Likely Descendant
MMRP	mitigation monitoring and reporting program
mph	miles per hour
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act
NO <sub>x</sub>	nitrogen oxides
NRHP	National Register of Historic Places
p.m.	post meridiem
PM	particulate matter
PM <sub>2.5</sub>	particulate matter of aerodynamic radius of 2.5 micrometers or less
PM <sub>10</sub>	particulate matter of aerodynamic radius of 10 micrometers or less

1	Rare Plant Plan	Rare Plant Relocation, Management, and Protection Plan
2	ROG	reactive organic gases
3	SJVAPCD	San Joaquin Valley Air Pollution Control District
4	SVP	Society of Vertebrate Paleontology
5	SWPPP	stormwater pollution prevention plan
6	U.S.	United States
7	USFWS	U.S. Fish and Wildlife Service
8	VELB	valley elderberry longhorn beetle
9	WWMP	Wastewater Master Plan

Mitigation Measure	Applicable WWMP Improvement		Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials	
	Program-level Components	River Trunk Realignment Project					
<b>Aesthetics</b>							
AES-1	<p><b>Locate Staging Areas Away from Public Areas and Install Screening.</b></p> <p>For components located in residential areas and near public parks, the City shall implement the following measures. Construction staging areas for equipment, vehicle parking, and material storage will be sited as far as possible from residences, major roadways, parks and other public areas. With the exception of designated staging areas for the River Trunk Realignment Project, to the extent practicable, staging areas for Program components shall be sited in areas where existing topography and vegetation can help screen views of the staging area. Where on-street or on-site staging areas are necessary, chain-link fencing with slats (either earth tone or another neutral color) or other screening methods shall be installed around designated staging areas to screen views of equipment and materials</p>	CSC OP SP	X	<ol style="list-style-type: none"> <li>1. Include requirements in project plans and specifications.</li> <li>2. Identify staging area locations that meet the requirements described in the measure.</li> <li>3. In instances where on-street or on-site staging areas are necessary, implement screening methods.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm that measure is included in plans and specifications.</li> <li>2. Confirm that selected staging areas comply with requirements of the measure.</li> <li>3. If necessary, confirm that screening methods are implemented appropriately.</li> </ol>	<ol style="list-style-type: none"> <li>1. During preparation of plans and specifications.</li> <li>2. Prior to construction.</li> <li>3. Prior to construction.</li> </ol>	
<b>Air Quality</b>							
AQ-1	<p><b>Implement SJVAPCD Regulation VIII Control Measures for Construction Emissions of PM<sub>10</sub></b></p> <p>The following controls are required to be implemented by the City or its contractor at all construction sites.</p> <ul style="list-style-type: none"> <li>▪ All disturbed areas, including storage piles, that are not being actively used for construction purposes will be effectively stabilized to avoid dust emissions through application of water, a chemical stabilizer/suppressant, or by covering these areas with a tarp or other suitable cover or vegetative ground cover.</li> <li>▪ All on-site unpaved roads and off-site unpaved access roads will be effectively stabilized to avoid dust emissions using water or a chemical stabilizer/suppressant.</li> <li>▪ All land-clearing, grubbing, scraping, excavation, land-leveling, grading, cut-and-fill, and demolition activities will be effectively controlled to avoid fugitive dust emissions through the application of water during work or by presoaking.</li> <li>▪ When materials are transported off-site, all material will be covered or effectively wetted to limit visible dust emissions, and at least 6 inches of freeboard space from the top of the container will be maintained.</li> <li>▪ All operations will limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. The use of blower devices is expressly forbidden.)</li> <li>▪ Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles will be effectively stabilized of fugitive dust emissions using sufficient water or chemical stabilizer/suppressant.</li> <li>▪ Within urban areas, trackout will be immediately removed when it extends 50 or more feet from the site and at the end of each workday.</li> <li>▪ Any site with 150 or more vehicle trips per day will prevent carryout and trackout.</li> </ul>	CSC JP LSC OC OP PL SP	X	<ol style="list-style-type: none"> <li>1. Include emission reduction measures into the project plans and specifications.</li> <li>2. Implement and document emission reduction measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm emission reduction measures are incorporated into the project plans and specifications.</li> <li>2. Confirm emission reduction measures are implemented properly.</li> </ol>	<ol style="list-style-type: none"> <li>1. During development of the plans and specifications.</li> <li>2. During construction.</li> </ol>	

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Mitigation Measure		Applicable WWMP Improvement		Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
		Program-level Components	River Trunk Realignment Project				
AQ-2	<p><b>Implement Enhanced Control Measures for Construction Emissions of PM<sub>10</sub></b></p> <p>The following measures will be implemented by the City or its contractor at construction sites when required to mitigate significant PM<sub>10</sub> impacts as determined by SJVAPCD Air Quality Thresholds of Significance discussed above (note, these measures are to be implemented in addition to Regulation VIII requirements).</p> <ol style="list-style-type: none"> <li>1. Limit traffic speeds on unpaved roads to 15 mph.</li> <li>2. Install sandbags or other erosion-control measures to prevent silt runoff.</li> </ol> <p>The following measures are strongly encouraged at construction sites that are large in area, are located near sensitive receptors, or that warrant additional emissions reductions for any other reason.</p> <ol style="list-style-type: none"> <li>1. Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site.</li> <li>2. Install wind breaks at windward sides of construction areas.</li> <li>3. Suspend excavation and grading activity when winds exceed 20 miles per hour (mph).</li> <li>4. Limit the area subject to excavation, grading, and other construction activity at any one time.</li> <li>5. Regardless of the wind speed, an owner/operator must comply with Regulation VIII's 20% opacity limitation.</li> </ol>	CSC JP LSC OC OP PL SP	X	<ol style="list-style-type: none"> <li>1. Include enhanced emission control measures into project plans and specifications.</li> <li>2. Implement and document enhanced emission control measures.</li> <li>3. The quantitative air analyses shall be based on the types, locations, numbers, and operations of equipment to be used and shall determine whether the combined emissions exceed the SJVAPCD's permitted and unpermitted air quality thresholds.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm enhanced emission control measures are included in project plans and specifications.</li> <li>2. Confirm that enhanced emission control measures are implemented properly.</li> </ol>	<ol style="list-style-type: none"> <li>1. During preparation of plans and specifications.</li> <li>2. During construction.</li> <li>3. Prior to or during construction.</li> </ol>	
AQ-3	<p><b>Implement Control Measures for Operation Emissions of PM<sub>10</sub> and for Ozone Precursors (ROG and NO<sub>x</sub>)</b></p> <p>In compliance with SJVAPCD rules, when the Air Quality Thresholds of Significance will be exceeded, the City or its contractor shall install equipment with Best Available Control Technology, as indicated in a site-specific air quality analysis to reduce emissions below the SJVAPCD significance threshold. Installed equipment with Best Available Control Technology may include but not be limited to pumping, dewatering, aerating, or heating equipment. This measure will be implemented at all new or modified wastewater system sites when required to mitigate significant PM<sub>10</sub> and ozone impacts, due to exceedance of Air Quality Thresholds of Significance.</p>	CSC JP LSC OC OP PL SP	X	<ol style="list-style-type: none"> <li>1. N/A</li> <li>2. If necessary, and if directed by the City, install equipment with Best Available Control Technology at new or modified facility sites.</li> </ol>	<ol style="list-style-type: none"> <li>1. For new or modified facilities, conduct site-specific air quality analysis to determine if operational emissions will exceed SJVAPCD thresholds.</li> <li>2. If thresholds will be exceeded, ensure that equipment with Best Available Control Technology is installed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Prior to or during design phase.</li> <li>2. If necessary, include equipment specifications during development of plans and specifications. Install equipment during construction.</li> </ol>	
<b>Biological Resources</b>							
BIO-1	<p><b>Perform Surveys for Special-status Plant Species.</b></p> <p>Prior to implementation of construction activities at a site with grasslands, valley and foothill riparian, wetlands, or vernal pools, a qualified botanist will perform floristic surveys for special-status plant species.</p> <p>Floristic surveys shall occur during the appropriate blooming period(s) for all special-status plant species with the potential to occur at the component site as determined by the botanist. If special-status plants may be directly or indirectly affected, then <b>Mitigation Measure BIO-2</b> shall be implemented.</p>	CSC OP	X	<ol style="list-style-type: none"> <li>1. N/A</li> <li>2. Provide the City with advance notice of construction schedule and anticipated start date. Support site access for qualified biologist.</li> <li>3. Do not start construction until</li> </ol>	<ol style="list-style-type: none"> <li>1. Retain a qualified biologist to conduct focused surveys.</li> <li>2. Ensure qualified biologist conducts focused surveys prior to implementation of construction activities.</li> <li>3. If special-status plants are identified that may</li> </ol>	<ol style="list-style-type: none"> <li>1. Prior to construction.</li> <li>2. Prior to construction.</li> <li>3. Prior to construction.</li> </ol>	

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Mitigation Measure		Applicable WWMP Improvement		Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
		Program-level Components	River Trunk Realignment Project				
				focused surveys have been conducted and, if necessary, <b>Mitigation Measure BIO-2</b> has been implemented.	be directly or indirectly affected by activities, ensure that <b>Mitigation Measure BIO-2</b> is implemented.		
BIO-2	<p><b>Avoid, Minimize and Compensate for Impacts on Special-status Plant Species.</b></p> <p>If special-status plants are detected, the City shall implement the following measures to avoid, minimize, and compensate for impacts on special-status plant species:</p> <ul style="list-style-type: none"> <li>▪ The component shall be redesigned or modified to avoid direct and indirect impacts on special-status plant species, if feasible. Any special-status plant species occurrences near a Program site will be protected by environmentally-sensitive area fencing (orange construction barrier fencing) installed around special-status plant species populations. The environmentally-sensitive area fencing will be installed at least 200 feet from the edge of the population where feasible, and where not feasible, the buffer will be large enough to adequately protect populations from program activities. Where special-status plant populations are located in wetlands, silt fencing also will be installed. The location of the fencing will be marked in the field with stakes and flagging, and shown on the construction drawings. The construction specifications will contain clear language that prohibits construction-related activities, vehicle operation, material and equipment storage, and other surface disturbing activities within the fenced environmentally-sensitive area.</li> <li>▪ If avoidance is not feasible, the Program proponent will consult with either CDFW or USFWS, or both, depending upon which has jurisdiction, to determine whether transplantation of special-status plant species is feasible. If the agencies concur that it is a feasible mitigation measure, the botanist will develop and implement a Rare Plant Relocation, Management, and Protection Plan (Rare Plant Plan) in coordination with the appropriate agencies. The Rare Plant Plan will include the following components: relocation methods that will minimize the potential loss of plants from relocation, management plans and success criteria by which the mitigation can be measured for success, and regular monitoring to ensure that the plants are successfully transplanted. Success criteria shall require that at least 75% of the plants survive. The Rare Plant Plan will include specific, measurable triggers for adaptive management actions that will be necessary to ensure survival.</li> <li>▪ The Rare Plant Plan will specify annual monitoring of the mitigation site for at least five years after planting, and will assess factors such as population size and density, recruitment, and individual plant health and vigor. Monitoring will also assess whether the mitigation requires adaptive management actions, such as collection and sowing of additional seed, tillage/disturbance within existing populations to induce establishment, installation of container plants, and control of exotic invasive vegetation (such as yellow star thistle) to ensure successful plant establishment and survival. The site will be evaluated at the end of the 5-year monitoring period to determine whether the mitigation has met the success criteria identified in the</li> </ul>	CSC OP	X	<ol style="list-style-type: none"> <li>1. If necessary, redesign or modify Program components to avoid or minimize impacts on special-status species.</li> <li>2. Incorporate requirements prohibiting activities within fenced environmentally-sensitive areas into plans and specifications.</li> <li>3. Protect any special-status plant species occurrences near a Program component site with environmentally-sensitive area fencing.</li> <li>4. N/A</li> <li>5. If directed by the City, implement the Rare Plant Plan prepared by the qualified botanist.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm that modified design would avoid or minimize special-status plant species.</li> <li>2. Confirm that requirements prohibiting activities within fenced environmentally-sensitive areas are included in plans and specifications.</li> <li>3. Confirm that environmentally-sensitive area fencing is appropriately implemented, if such fencing is necessary to protect special-status species.</li> <li>4. If avoidance is not feasible, consult with CDFW and/or USFWS to determine feasibility of special-status plant species transplantation. If feasible, retain qualified botanist to prepare Rare Plant Plan.</li> </ol>	<ol style="list-style-type: none"> <li>1. During design phase.</li> <li>2. During preparation of plans and specifications.</li> <li>3. Prior to start of construction.</li> <li>4. Prior to construction.</li> <li>5. During and/or after construction. Annual monitoring would occur for 5 years after planting.</li> </ol>	

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Mitigation Measure		Applicable WWMP Improvement		Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
		Program-level Components	River Trunk Realignment Project				
	<p>Rare Plant Plan. If success criteria are not met at that time, then mitigation activities and monitoring will continue until success criteria are met.</p> <ul style="list-style-type: none"> <li>As part of the Rare Plant Plan, the program proponent, in conjunction with a qualified restoration ecologist and/or botanist and the consulting agency, if any, will identify a suitable on- or off-site location for mitigation, and appropriate methods for seed collection, propagation, relocation, maintenance, and monitoring. Mitigation sites will be located within the range of the affected plant and contain suitable habitat sites. For annual plant species, the seed crop from the individuals to be lost will be collected and then sown on appropriate habitat located on the mitigation site. The individuals will not be removed until seeds have been collected. For perennial plant species, both the seed and the plants themselves will be salvaged and relocated to the mitigation site. The individuals will not be removed until seeds have been collected. Seed from the populations that will be affected may be collected and propagated at a native plant nursery prior to planting in order to increase the potential for establishment and survival.</li> </ul>				5. If necessary (i.e., avoidance is not feasible), confirm Rare Plant Plan is appropriately prepared by a qualified individual, and appropriately implemented (including 5-year monitoring requirements).		
BIO-3	<p><b>Avoid Impacts on Vernal Pool Branchiopods, Western Spadefoot, and Their Habitat.</b></p> <p>Prior to implementation of proposed CIPs in areas that could contain habitat for vernal pool branchiopods, the City shall retain a qualified biologist to conduct surveys to determine whether vernal pools or seasonal wetlands will be directly or indirectly affected by construction activities. If potential habitat for special-status invertebrate species is found, the City shall avoid any habitats that may support special-status species by establishing a buffer zone for each resource. The sizes of buffer zones shall be determined in consultation with the USFWS.</p>	All Program-level components in grasslands or pastures	N/A	<ol style="list-style-type: none"> <li>N/A</li> <li>If necessary, and if habitat is present on-site, implement buffer zone identified by qualified biologist and/or USFWS to protect habitat.</li> </ol>	<ol style="list-style-type: none"> <li>Retain a qualified biologist to conduct surveys for vernal pools and wetlands.</li> <li>If surveys find potential special-status invertebrate species habitat, confirm that an adequate buffer zone is implemented to protect resources.</li> </ol>	<ol style="list-style-type: none"> <li>Prior to construction.</li> <li>Prior to initiation of construction activities.</li> </ol>	
BIO-4	<p><b>Minimize and Compensate for Impacts on Vernal Pool Branchiopods, Western Spadefoot, and Their Habitat.</b></p> <p>If direct or indirect impacts to habitat with the potential to support vernal pool branchiopods or potential western spadefoot breeding habitat cannot be avoided the City shall implement the following measures:</p> <ul style="list-style-type: none"> <li>After construction, restore surface topography and drainage to pre-construction conditions; and</li> <li>Provide off-site compensation for permanent, temporary, and indirect impacts at ratios determined through consultation with USFWS and CDFW. The performance standard shall be no net loss in acreage or habitat quality for vernal pool branchiopods and no net loss in breeding habitat quality or acreage for western spadefoot, as determined through consultation with USFWS and CDFW.</li> </ul>	All Program-level components in grasslands or pastures	X	<ol style="list-style-type: none"> <li>If impacts to habitat could not be avoided per <b>Mitigation Measure BIO-3</b>, restore surface topography and drainage to pre-construction conditions to minimize impacts.</li> <li>N/A</li> <li>If instructed by the City, implement off-site compensation plan for impacts to vernal pool branchiopods and/or western spadefoot.</li> </ol>	<ol style="list-style-type: none"> <li>If impacts could not be avoided per <b>Mitigation Measure BIO-3</b>, ensure that surface topography and drainage is restored to pre-construction conditions following construction.</li> <li>Consult with USFWS and CDFW to determine appropriate ratios for off-site compensation for impacts to vernal pool branchiopods and/or western spadefoot.</li> </ol>	<ol style="list-style-type: none"> <li>Following construction.</li> <li>As soon as it is determined that impacts to species/habitat cannot be avoided per <b>Mitigation Measure BIO-3</b>.</li> <li>Following consultation with USFWS/CDFW and development of compensation approach.</li> </ol>	

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		Program-level Components	River Trunk Realignment Project				
					3. Either implement compensation plan, instruct the contractor to do so, or hire a third party to perform the needed work.		
BIO-5	<p><b>Avoid Impacts on VELB Habitat.</b></p> <p>The City and/or its contractor(s) shall avoid riparian habitat and/or elderberry shrubs whenever possible. If an individual CIP is not within a riparian area, is located on an existing site or other developed area, or within the public right of way, any impacts to the VELB would not be expected to be substantial and therefore would not require mitigation. For proposed improvements that may potentially impact VELB habitat, following USFWS guidance, the Program sites and a 165-foot-wide buffer surrounding such sites will be surveyed and mapped by a qualified biologist for the presence of elderberry shrubs. If elderberry shrubs are present, to the extent feasible, the Program shall adhere to avoidance measures outlined in USFWS' Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (<i>Desmocerus californicus dimorphus</i>) (USFWS 2017f). This shall include the following avoidance measures:</p> <ul style="list-style-type: none"> <li>▪ If elderberry shrubs are located in non-riparian area, a qualified biologist shall evaluate the shrubs for exit holes. If exit holes are present, the shrubs are considered suitable habitat and likely occupied. If exit holes are not present, the biologist shall evaluate whether known VELB occurrences are located within 2,625 feet of the CIP, whether the project site is near suitable riparian habitat, and any surrounding barriers to VELB dispersal.</li> <li>▪ The City shall fence and flag all areas to be avoided during construction activities including all established elderberry shrubs within 165 feet of ground disturbing construction that shall not be impacted by construction activities.</li> <li>▪ No open-cut construction or other ground disturbance shall occur within 20 feet of the dripline of elderberry plants containing stems measuring 1.0 inch or greater in diameter at ground level.</li> <li>▪ A qualified biologist shall provide training for all contractors, work crews, and any onsite personnel on the status of the VELB, its host plant and habitat, the need to avoid damaging the elderberry shrubs, and the possible penalties for noncompliance.</li> <li>▪ A qualified biologist shall monitor the work area at project-appropriate intervals to assure that all avoidance and minimization measures are implemented. The amount and duration of monitoring shall depend on the project specifics and should be discussed with USFWS.</li> <li>▪ As much as feasible, all activities that could occur within 165 feet of an elderberry shrub, shall be conducted outside of the flight season of the VELB (March - July).</li> <li>▪ If required, trimming of elderberry shrubs shall occur between November and February and shall avoid the removal of any branches or stems that are ≥ 1 inch in diameter.</li> </ul>	CSC JP LSC OC OP PL SP	X	<ol style="list-style-type: none"> <li>1. Incorporate requirement to avoid riparian habitat and/or elderberry shrubs into plans and specifications.</li> <li>2. Make any necessary accommodations to allow biologist to conduct survey for elderberry shrubs/VELB habitat.</li> <li>3. Avoid riparian habitat and/or elderberry shrubs whenever possible. If necessary, and VELB habitat is present on-site, implement avoidance measures described in mitigation measure.</li> <li>4. N/A</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm that requirement to avoid riparian habitat and/or elderberry shrubs is included in project plans and specifications.</li> <li>2. Retain qualified biologist to conduct surveys for the presence of elderberry shrubs that may be required.</li> <li>3. If elderberry shrubs are present, ensure that avoidance measures are implemented.</li> <li>4. If elderberry shrubs cannot be avoided, implement <u>Mitigation Measure BIO-6</u>.</li> </ol>	<ol style="list-style-type: none"> <li>1. During preparation of plans and specifications.</li> <li>2. Prior to construction.</li> <li>3. Prior to, and during, construction.</li> <li>4. As soon as it is evident that elderberry shrubs cannot be avoided during construction.</li> </ol>	

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		Program-level Components	River Trunk Realignment Project				
	<ul style="list-style-type: none"> <li>Herbicides shall not be used within the drip-line of the shrub. Insecticides shall not be used within 98 feet of an elderberry shrub. All chemicals shall be applied using a backpack sprayer or similar direct application method.</li> <li>Mechanical weed removal within the drip-line of the shrub shall be limited to the season when VELB adults are not active (August-February) and shall avoid damaging the elderberry.</li> <li>Erosion control shall be implemented and the affected area shall be re-vegetated with appropriate native plants.</li> </ul> <p>If elderberry shrubs cannot be avoided, implement <b>Mitigation Measure BIO-6</b>.</p>						
BIO-6	<p><b>Implement VELB Compensatory Mitigation, if Necessary.</b></p> <p>The City shall implement the following measures. If feasible, any shrub that would be adversely impacted by the project shall be transplanted to a USFWS-approved location per <b>Mitigation Measure BIO-7</b>.</p> <p>Impacts to VELB habitat shall be mitigated through purchase of compensatory mitigation credits from a USFWS-approved mitigation bank, or through on- or off-site mitigation. If on- or off-site mitigation is planned, a Compensatory Mitigation Proposal shall be developed and shall be subject to approval by USFWS.</p> <p>Mitigation ratios shall be based on impacts to VELB habitat, as well as impacts to individual shrubs. One credit (unit) = 1,800 square feet. For habitat, the total amount of permanent disturbance in square feet should be calculated, the appropriate ratio applied, and the total number divided by 1,800. Impacts to riparian habitat shall be mitigated at a 3:1 (acre(s) of credits: acre(s) of disturbance) ratio. For disturbance to elderberry shrubs in non-riparian habitat, a 1:1 ratio shall be used.</p> <p>Impacts to individual shrubs in riparian areas may be replaced by the purchase of 2 credits at a USFWS-approved bank for each shrub impacted regardless of the presence of exit holes. Impacts to individual shrubs in non-riparian areas shall be replaced through a purchase of 1 credit at a USFWS-approved bank for each shrub that shall be impacted if exit holes have been found in any shrub on or within 165 feet of the project area.</p>	CSC JP LSC OC OP PL SP	X	<ol style="list-style-type: none"> <li>Take all measures to preserve any elderberry shrub encountered that must be removed, such that the shrub may be transplanted per <b>Mitigation Measure BIO-7</b>.</li> <li>If on-site mitigation is selected as the compensatory mitigation approach, implement any measures of the mitigation plan to which the contractor is delegated responsibility.</li> <li>N/A</li> </ol>	<ol style="list-style-type: none"> <li>Ensure that any elderberry shrub removed during construction is preserved and transplanted per <b>Mitigation Measure BIO-7</b>, if feasible.</li> <li>In coordination with USFWS, develop a compensatory mitigation approach following requirements set forth in mitigation measure. Either implement approach or delegate certain responsibilities to contractor.</li> <li>Confirm that compensatory mitigation is satisfactorily provided.</li> </ol>	<ol style="list-style-type: none"> <li>During or prior to construction, if elderberry shrubs are encountered.</li> <li>Once it is determined that avoidance of elderberry shrubs is infeasible. Compensatory mitigation shall be provided after approach is confirmed by USFWS.</li> <li>After implementation of compensatory mitigation plan/approach.</li> </ol>	
BIO-7	<p><b>Transplant Elderberry Shrubs if Avoidance Is Not Feasible.</b></p> <p>The City shall implement the following measures. If an elderberry shrub cannot be avoided or if indirect effects shall result in the death of stems or the entire shrub, then in addition to <b>Mitigation Measure BIO-6</b>, the shrub shall be transplanted.</p> <p>Elderberry shrubs shall be transplanted as close as possible to their original location. Elderberry shrubs may be relocated adjacent to the project footprint if: 1) the planting location is suitable for elderberry growth and reproduction; and 2) the City is able to protect the shrub and ensure that the shrub becomes reestablished. If these criteria cannot be met, the shrub may be transplanted to an appropriate USFWS-approved mitigation site. Any elderberry shrub that is unlikely to survive transplanting because of poor condition or location, or a shrub that would be extremely difficult to move because of access problems,</p>	CSC JP LSC OC OP PL SP	X	<ol style="list-style-type: none"> <li>N/A</li> <li>Under direction of the qualified biologist, transplant elderberry shrubs that cannot be avoided following the guidelines and requirements in the mitigation measure.</li> </ol>	<ol style="list-style-type: none"> <li>Retain a qualified biologist to oversee transplantation activities, should such activities be necessary.</li> <li>Confirm that any elderberry shrubs that cannot be avoided are transplanted appropriately in accordance with the guidelines contained in</li> </ol>	<ol style="list-style-type: none"> <li>Prior to construction.</li> <li>After it is determined that elderberry shrubs cannot be avoided.</li> </ol>	

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		Program-level Components	River Trunk Realignment Project				
	<p>may not be appropriate for transplanting. The transplanting guidelines below shall be followed:</p> <ul style="list-style-type: none"> <li>▪ A qualified biologist shall be on-site for the duration of transplanting activities to assure compliance with avoidance and minimization measures and other conservation measures.</li> <li>▪ Exit-hole surveys shall be completed immediately before transplanting. The number of exit holes found, GPS location of the plant to be relocated, and the GPS location of where the plant is transplanted shall be reported to the Service and to the CNDDDB.</li> <li>▪ Elderberry shrubs shall be transplanted when the shrubs are dormant (November through the first two weeks in February) and after they have lost their leaves.</li> <li>▪ Transplanting shall follow the most current version of the ANSI A300 (Part 6) guidelines for transplanting (<a href="http://www.tcia.org">www.tcia.org</a>).</li> </ul>				the mitigation measure, and that exit-hole surveys are reported to CDFW and USFWS.		
BIO-8	<p><b>Conduct Preconstruction Surveys for and Minimize Impacts on Western Pond Turtle.</b></p> <p>Preconstruction surveys for western pond turtles in suitable aquatic and upland habitat will be conducted by a qualified biologist 2 weeks before and 24 hours before the start of construction activities in streams, irrigation canals, ponds, and sloughs where suitable habitat exists. If a western pond turtle is located within the construction area, it will be relocated out of this area (with authorization from the CDFW), and exclusion fence will be installed to prevent the movement of turtles back into the construction area. Additionally, the following minimization measures will be implemented.</p> <ul style="list-style-type: none"> <li>▪ The project proponent will minimize grading and construction activities along the banks of streams, irrigation canals, and sloughs and within 1,000 feet of these areas between October 15 and April 15 in order to reduce potential mortality to hibernating western pond turtles.</li> <li>▪ If a western pond turtle becomes trapped during construction activities within the waterway, the turtle will be removed from the work area and placed downstream from the project site (with authorization from CDFW).</li> <li>▪ The construction area will be clearly defined, using orange barrier fencing, in order to minimize disturbance to riparian vegetation and western pond turtle habitat.</li> <li>▪ If nesting areas for western pond turtles are identified in the study area during preconstruction surveys, a buffer of 300 feet will be established between the nesting site and the construction area. Buffers will be indicated by temporary fencing if construction begins before the nesting period ends (egg laying to emergence of hatchlings normally extends from April to November).</li> </ul>	CSC JP LSC OC OP PL SP	X	<ol style="list-style-type: none"> <li>1. N/A</li> <li>2. Do not initiate construction activities until preconstruction surveys have been conducted.</li> <li>3. In coordination with the qualified biologist, relocate any discovered turtles outside of the construction area and erect exclusion fence to prevent re-entry. Implement minimization measures described in the mitigation measure, as directed by the biologist.</li> </ol>	<ol style="list-style-type: none"> <li>1. Retain a qualified biologist to conduct preconstruction surveys for western pond turtle in any suitable habitat.</li> <li>2. Confirm that surveys are conducted in accordance with the mitigation measure prior to initiation of construction activities.</li> <li>3. For any turtles discovered in the project area, ensure these individuals are relocated out of the area and that exclusion fence is installed to prevent re-entry. Also, confirm that minimization measures are implemented in the event that turtles or their habitat are present.</li> </ol>	<ol style="list-style-type: none"> <li>1. Prior to construction.</li> <li>2. Prior to initiation of construction activities.</li> <li>3. Prior to, or during, construction, if necessary.</li> </ol>	

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Mitigation Measure		Applicable WWMP Improvement		Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
		Program-level Components	River Trunk Realignment Project				
BIO-9	<p><b>Conduct Pre-construction Surveys for Burrowing Owls and Implement No-Work Buffer Areas If Necessary.</b></p> <p>Pre-construction surveys shall be conducted by a qualified biologist in all areas of suitable burrowing owl habitat within 250 feet of construction activity. Surveys shall be conducted within 14 days before the start of construction activity. If no work occurs for a period of 2 or more weeks during the nesting season, surveys must be performed before work is resumed. If no burrowing owls or signs of burrowing owls are detected during the survey, no further mitigation shall be required. If breeding or resident burrowing owls are located on or within 250 feet of the proposed construction site, the following measures shall be implemented. If burrowing owls are detected, disturbance to burrows shall be avoided during the nesting season (February 1 through August 31). Buffers shall be established around occupied burrows in accordance with guidance provided in the Staff Report on Burrowing Owl Mitigation (CDFG 2012), and at the discretion of a qualified wildlife biologist. Buffers around occupied burrows shall be a minimum of 656 feet (200 meters) during the breeding season, and 160 feet (100 meters) during the non-breeding season. Buffer distances shall be subject to the approval of CDFW.</p> <p>If occupied burrows cannot be avoided, passive owl relocation techniques may be implemented outside of the nesting season (February 1 through August 31). Owls would be excluded from burrows within 160 feet of construction by installing one-way doors in burrow entrances. The work area shall be monitored daily for 1 week to confirm owl departure from burrows prior to any ground-disturbing activities. Where possible burrows shall be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe shall be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow.</p> <p>If occupied burrows are relocated, the City shall enhance or create burrows in adjacent habitat at a 1:1 ratio (burrows destroyed to burrows enhanced or created) one week prior to implementation of passive relocation techniques. If burrowing owl habitat enhancement or creation takes place, the City shall develop and implement a monitoring and management plan to assess the effectiveness of the mitigation. The plan shall be subject to the approval of CDFW.</p>	CSC JP LSC OC OP PL SP	N/A	<ol style="list-style-type: none"> <li>1. N/A</li> <li>2. Do not initiate construction activities until preconstruction surveys have been completed. Provide any needed support/assistance to the qualified biologist in establishing no-work buffers around occupied burrows, if such burrows are discovered.</li> <li>3. Provide any needed support/assistance to the qualified biologist and the City in implementing a passive owl relocation plan, if such a plan is deemed necessary.</li> </ol>	<ol style="list-style-type: none"> <li>1. Retain a qualified biologist to conduct the preconstruction surveys for burrowing owls.</li> <li>2. If burrowing owls are located on or within 250 feet of the construction site, ensure that no-work buffers are established around occupied burrows in accordance with mitigation measure. Confirm appropriate buffer distances with CDFW.</li> <li>3. If occupied burrows cannot be avoided, ensure that passive owl relocation techniques are appropriately implemented. Enhance or create burrows in adjacent habitat at a 1:1 ratio one week prior to implementation of passive relocation techniques. Obtain approval from CDFW for owl relocation plan.</li> </ol>	<ol style="list-style-type: none"> <li>1. Prior to construction.</li> <li>2. Prior to construction.</li> <li>3. Prior to construction / after it is determined that occupied burrows cannot be avoided.</li> </ol>	
BIO-10	<p><b>Avoid and Minimize Impacts on Raptors, including Special-status Species.</b></p> <p>The City shall implement the following measures. If ground and vegetation disturbing activities occur between February 1 and August 31, the City shall conduct a nesting raptor survey, with a focus on Swainson’s hawk and white-tailed kite, in accordance with Recommended Timing and Methodology for Swainson’s Hawk Nesting Survey’s in California’s Central Valley (Swainson’s Hawk Technical Advisory Committee 2000, or current CDFW guidance). Surveys shall cover a minimum of a 0.5-mile radius around potentially suitable nesting habitat for Swainson’s hawk and white-tailed kite. Agricultural lands within 500 feet of ground disturbing construction activities shall be surveyed for northern harrier nests.</p>	CSC JP LSC OC OP PL SP	X	<ol style="list-style-type: none"> <li>1. N/A</li> <li>2. Do not initiate ground- and vegetation-disturbing activities between February 1 and August 31 until a nesting raptor survey has been conducted. If nesting raptors are detected, provide any needed support to the</li> </ol>	<ol style="list-style-type: none"> <li>1. Retain a qualified biologist to conduct the nesting raptor survey.</li> <li>2. If nesting raptors are detected, ensure that an appropriate 500-foot no-disturbance buffer is established around the nest.</li> </ol>	<ol style="list-style-type: none"> <li>1. Prior to construction.</li> <li>2. Prior to construction, if necessary.</li> </ol>	

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Mitigation Measure		Applicable WWMP Improvement		Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
		Program-level Components	River Trunk Realignment Project				
	If nesting raptors are detected, the City shall establish a 500-foot no-disturbance buffer around the nest. No construction activities shall be initiated within the buffer until fledglings are fully mobile and no longer reliant upon the nest or parental care for survival.			qualified biologist and/or the City in establishing no-disturbance buffers around the nest(s). Do not conduct activities within the buffer(s) until directed by the biologist.			
BIO-11	<p><b>Compensate for Loss of Raptor Foraging Habitat.</b></p> <p>The City shall implement the following measures. To mitigate for the loss of potential Swainson’s Hawk foraging habitat, the City shall provide off-site habitat management lands, as described in the CDFW protocol for the mitigation of impacts on Swainson’s hawks in the Central Valley (CDFG 1994), or by purchasing credits at a CDFW-approved Swainson’s hawk foraging habitat mitigation bank that covers the study area, such as the Dutchman Creek Conservation Bank.</p> <p>The City shall determine the final acreage of off-site management lands or mitigation bank credits to be provided based on the CDFW protocol (CDFG 1994). For the purposes of this mitigation measure, all program-level components are assumed to be within 1 mile of an active Swainson’s hawk nest tree. Mitigation credits would follow the same ratio guidelines as off-site management lands. The City shall compensate for losses as follows:</p> <ul style="list-style-type: none"> <li>▪ 1 acre of habitat management land for each acre of development authorized (1:1 ratio), at least 10% of which shall be met by fee title acquisition or a conservation easement allowing for the active management of the habitat, with the remaining 90% protected by a conservation easement acceptable to CDFW on agricultural lands or other suitable habitats that provide foraging habitat for Swainson’s hawk; or</li> <li>▪ 0.5 acre of habitat management land for each acre of development authorized (0.5:1 ratio), all of which shall be met by fee title acquisition or a conservation easement acceptable to CDFW that allows for the active management of the habitat for prey production on the habitat management lands.</li> </ul> <p>The City shall provide for the long-term management of the habitat management lands by funding a management endowment (the interest on which shall be used for managing the habitat management lands). If mitigation credits are purchased, long term management would be the responsibility of the mitigation bank.</p>	CSC JP LSC OC OP PL SP	X	1. N/A	1. Provide off-site compensation for losses of raptor foraging habitat through one of the methods described in the mitigation measure. Confirm that off-site mitigation is sufficient to compensate for impacts following the ratios outlined in the measure.	1. After the acreage of any permanent impacts to raptor foraging habitat is determined.	
BIO-12	<p><b>Conduct Pre-construction Surveys for Nesting Birds and Implement No-Work Buffer Areas If Necessary.</b></p> <p>The City shall implement the following measures. If construction activities occur during the breeding season (February 15–August 31), a pre-construction survey shall be conducted by a qualified biologist in all areas of suitable nesting habitat within 500 feet of construction activity. Surveys shall be conducted within 14 days before the start of construction activity. If no work occurs for a period of 2 or more weeks during the nesting season, surveys must be performed before work is resumed. If the survey indicates that no active nests are found, no further mitigation shall be required.</p>	CSC JP LSC OC OP PL SP	X	1. N/A 2. Do not initiate construction activities during the bird breeding season until surveys have been conducted. Provide any assistance or accommodation	1. Retain a qualified biologist to conduct the preconstruction surveys for nesting birds. 2. Confirm that surveys are appropriately conducted within 14 days of construction	1. Prior to construction. 2. Prior to construction. 3. Prior to and during construction.	

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Mitigation Measure		Applicable WWMP Improvement		Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
		Program-level Components	River Trunk Realignment Project				
	If active nests are identified, appropriate no-disturbance buffers around nests shall be established. No-disturbance buffers around special-status passerine nests shall be 500 feet. No disturbance buffers for non-listed birds protected under the MBTA and Fish and Game Code sections 3503 and 3513 will be established by a qualified biologist familiar with the life history and reproductive strategies of the nesting species. The buffer widths will be based on species' sensitivity to disturbance (as documented in peer-reviewed literature), planned construction activities, and baseline level of human activity. The buffers will be clearly marked in the field with flagging or fencing. No work shall commence within the buffer until the young have fledged or the nest is deemed inactive.			necessary to the biologist conducting the survey. 3. In the event that active nests are identified, provide any needed assistance to the qualified biologist in establishing the no-disturbance buffers. Do not conduct construction activities within the buffers until directed by the biologist.	activity that would occur during the bird breeding season. 3. In the event that active nests are identified, ensure that no-disturbance buffers are established around nests in accordance with the measure.		
BIO-13	<b>Avoid and Minimize Impacts on Federally Protected Wetlands.</b> The City shall implement the following measures. To the extent feasible, proposed construction activities shall avoid federally protected wetlands. If complete avoidance of wetlands is not possible, a jurisdictional wetland delineation shall be conducted for the project site, which will be used during implementation of <b>Mitigation Measure BIO-14</b> . For all activities greater than one acre of disturbance, a SWPPP shall be implemented to reduce the potential for sediment and contaminants to enter wetlands and waters, and for all activities less than one acre of disturbance, a Local SWPPP shall be implemented. After construction, surface topography and drainage shall be restored to pre-construction conditions. Where appropriate, revegetation shall be implemented with site-adapted native plant species.	CSC OP	X	1. N/A 2. Avoid wetlands to the extent feasible. 3. If wetlands cannot be avoided, following construction, restore surface topography and drainage to pre-construction conditions. Additionally, where appropriate, revegetate impacted wetland areas with site-adapted native plant species.	1. If complete avoidance of wetlands is not possible, perform or commission a wetland delineation study for the project site, to be used during implementation of <b>Mitigation Measure BIO-14</b> . 2. Confirm that wetlands are avoided during construction activities to the extent feasible. 3. In the event that wetlands cannot be avoided, confirm that wetland areas are restored to pre-construction conditions.	1. Prior to construction. 2. During construction. 3. Following construction.	
BIO-14	<b>Obtain Regulatory Permits for Work Activities Taking Place in Wetlands and Waters of the United States and the State.</b> The City shall implement the following measures. Work within areas defined as waters of the U.S. and State that includes placement of fill will require a CWA Section 404 permit and Section 401 Water Quality Certification. All work proposed in jurisdictional waters of the U.S. shall be authorized under these permits, and the work shall comply with the general and regional conditions of the permits. In areas where disturbance to jurisdictional waters or wetlands occurs, the City shall implement mitigation consistent with the terms of a CWA	CSC OP	X	1. Do not initiate work in areas defined as water of the U.S. and State until the City has obtained the appropriate regulatory permits. 2. N/A	1. For work within areas defined as waters of the U.S. and State, obtain appropriate regulatory permits. 2. For areas where wetland impacts occur, provide compensatory	1. Prior to initiation of construction activities within waters. 2. At a time acceptable to the regulatory agencies.	

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Mitigation Measure		Applicable WWMP Improvement		Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
		Program-level Components	River Trunk Realignment Project				
	Nationwide Permit and/or the Final Rule on Compensatory Mitigation for Losses of Aquatic Resources (73 Fed. Reg. S19594). Compensatory mitigation may include creation, reestablishment, or enhancement of wetlands in the study area or at an off-site location. Compensatory mitigation may also include purchase of credits at an approved mitigation bank or contribution to an approved in-lieu fee program.				mitigation by one of the methods described in the mitigation measure.		
BIO-15	<b>Install Temporary Trench Plates over Open Trenches.</b> The City shall implement the following measure. During open-cut construction of pipelines, the City shall install temporary trench plates over open trenches at the end of each work day.	CSC JP LSC OC OP PL SP	X	1. Incorporate requirement into project plans and specifications. 2. Cover open trenches with trench plates at the end of each work day.	1. Confirm that requirement is included in plans and specifications. 2. Confirm that contractor is covering trenches appropriately at the end of each work day.	1. During preparation of plans and specifications. 2. During construction.	
<b>Cultural Resources</b>							
CR-1	<b>Conduct Cultural Resources Awareness Training for Construction Workers Prior to Beginning Work</b> Before initiation of ground-disturbing activities, the City or its designee shall arrange for construction crews to receive information about the kinds of archaeological materials that could be present at the River Trunk Realignment Project site and other CIP sites, and the protocols to be followed should any such materials be uncovered during construction. The training shall include information about the laws pertaining to treatment of cultural resources and emphasize the requirement for confidentiality. The informational materials shall be prepared by a qualified archaeologist, and a qualified archaeologist shall conduct the initial training at the beginning of each project. Subsequent trainings should occur as new personnel work on each project; it is incumbent on the City to ensure that the contractor conveys this information to new employees. This could occur during daily safety meetings by the construction supervisor, or more formal training by a qualified archaeologist.	CSC JP LSC OC OP PL SP	X	1. Coordinate with the City to provide workers information about potential buried cultural resources.	1. Arrange for workers to receive information about potential buried cultural resources	1. Prior to construction	
<b>Greenhouse Gases</b>							
None.							
<b>Hydrology and Water Quality</b>							
HYD/W Q-1	<b>Prepare and Implement a Frac-Out Contingency Plan for Trenchless Pipeline Installation Methods.</b> The City of Modesto’s drilling contractor for trenchless pipeline installation activities (e.g., horizontal directional drilling, microtunneling, pipe bursting) shall prepare and implement a frac-out contingency plan prior to conducting Proposed Program construction activities involving these methods. At a minimum, the frac-out contingency plan shall include: <ul style="list-style-type: none"> <li>Require a geotechnical engineer or qualified geologist to make recommendations regarding the suitability of the formations to be bored to minimize the potential for frac-out conditions.</li> </ul>	OP	X	1. N/A 2. Implement all preventative measures identified in mitigation measure. Make accommodations for geotechnical engineer, archaeologist, and biologist to survey area and make	1. Incorporate requirements into plans and specifications. 2. Ensure that all preventative measures are implemented. Retain geotechnical engineer and qualified archaeologist and	1. During preparation of plans and specifications. 2. During construction, if necessary.	

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	Program-level Components	River Trunk Realignment Project				
<ul style="list-style-type: none"> <li>▪ Require that a qualified archaeologist and biologist survey for and recommend protection measures for sensitive cultural and biological resources at the location of the entry and exit points and along the boring route.</li> <li>▪ Include worker training measures to ensure that all field personnel understand their responsibility for timely reporting of frac-outs to their supervisors. Supervisors must then report frac-outs to CDFW as described in the last bullet below.</li> <li>▪ Maintain necessary response equipment on-site or at a readily accessible location and in good working order.</li> <li>▪ Include contingency measures to stop work, and effectively isolate and clean up released drilling fluid in the event of a frac-out. Contingency measures should be described for a potential frac-out in a terrestrial and aquatic environment. Example contingency measures include the following (CPUC 2003):                      For a terrestrial frac-out:                     <ul style="list-style-type: none"> <li>– Isolate the area with hay bales, sand bags, or silt fencing to surround and contain the drilling mud.</li> <li>– Based on consultation with CDFW (see below), either:                             <ul style="list-style-type: none"> <li>▪ Use a mobile vacuum truck to pump the drilling mud from the contained area and recycle it to the return pit; or</li> <li>▪ Leave the drilling mud in place to avoid potential damage from vehicles entering the area.</li> </ul> </li> <li>– Once excess drilling mud is removed, seed and/or replant the area using species similar to those in the adjacent area, or allow the area to re-grow from existing vegetation.</li> </ul>                     For an aquatic frac-out:                     <ul style="list-style-type: none"> <li>– Monitor frac-out for 4 hours to determine if the drilling mud congeals (bentonite will usually harden, effectively sealing the frac-out location).</li> <li>– Based on consultation with CDFW (see below), either:                             <ul style="list-style-type: none"> <li>▪ If the drilling mud congeals, take no other action that would potentially suspend sediments in the water column.</li> <li>▪ If drilling mud does not congeal, erect isolation/containment environment (underwater boom and curtain).</li> <li>▪ If the fracture becomes excessively large, call in a spill response team to contain and clean up excess drilling mud in the water. Keep phone numbers of spill response teams on-site.                                     <ul style="list-style-type: none"> <li>– If the spill affects an area that is vegetated, seed and/or replant the area using species similar to those in the adjacent area, or allow the area to re-grow from existing vegetation.</li> </ul> </li> </ul> </li> </ul> </li> <li>▪ Notify and consult with CDFW in the event of a frac-out. Restore vegetation damaged by drilling fluid to pre-construction conditions.</li> </ul>			recommendations. Coordinate worker training for field personnel. 3. For any frac-outs that occur, notify the appropriate agencies and implement the appropriate measures, as specified in the measure.	biologist to make recommendations to minimize impacts. Arrange for field personnel to receive training. 3. For any frac-outs that occur, confirm that proper protocols were followed to contain the frac-out and minimize impacts.		

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		Program-level Components	River Trunk Realignment Project				
HYD/WQ-2	<p><b>Conduct Flood Flow Study for Benson Lift Station.</b></p> <p>Prior to final project design, the City of Modesto and/or its contractor(s) shall conduct a study to ascertain the changes in flows that may be caused by the proposed Benson Lift Station structure in the event of a 100-year flood. The study shall model the change, if any, in inundation area that may be caused by restriction in flood flow passage caused by the structure. If the study determines that the proposed lift station may cause inundation of adjacent or upstream/downstream properties or structures during a 100-year flood event, the City shall develop mitigation measures to address this impact. Feasible mitigation measures may include construction of flood protection structures for potentially affected properties or reconfiguration of the proposed project facilities to reduce impedance or redirection of flows (e.g., elevating critical facilities such as electrical panels and underground pump vault doors to levels above flood stage). Alternatively, the City may identify an alternative site for the proposed lift station that would avoid impacts on flood flows.</p>	LSC #3	N/A	<ol style="list-style-type: none"> <li>N/A</li> <li>Conduct flood flow study of pre- and post-project conditions in accordance with the mitigation measure. If study determines that the lift station may cause inundation of adjacent properties during a 100-year flood event, develop feasible mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>Incorporate requirements into plans and specifications.</li> <li>Ensure that flood flow study meets requirements described in <b>Mitigation Measure HYD/WQ-2.</b></li> </ol>	<ol style="list-style-type: none"> <li>During preparation of plans and specifications.</li> <li>During preparation of plans and specifications.</li> </ol>	
<b>Land Use and Planning</b>							
None.							
<b>Noise and Vibration</b>							
NOI-1	<p><b>Employ Noise-Reducing Construction and Maintenance Practices.</b></p> <p>The following measures will be implemented by the City or its contractor(s) to reduce adverse effects from construction and maintenance noise in locations where noise-sensitive receptors could be adversely affected:</p> <ul style="list-style-type: none"> <li>Locate stationary equipment as far as practical from noise-sensitive land uses;</li> <li>Use electrified or otherwise quieter equipment when practical;</li> <li>Use sound-control devices on equipment that are more effective than devices originally provided on the equipment;</li> <li>Use noise-reducing enclosures around noise-generating equipment; and</li> <li>Install temporary barriers between noise sources and noise-sensitive land uses, or take advantage of existing barrier features (e.g., terrain and structures) to block sound transmission.</li> </ul> <p>When determining haul truck routes, consideration will be given to altering haul routes to avoid sensitive receptors when feasible.</p>	CSC JP LSC OC OP PL SP	X	<ol style="list-style-type: none"> <li>Include noise reduction measures in project plans and specifications.</li> <li>Implement and document noise reduction measures. In coordination with the City, develop haul routes that avoid sensitive receptors to the extent feasible.</li> </ol>	<ol style="list-style-type: none"> <li>Confirm that noise reduction measures are included in project plans and specifications.</li> <li>Confirm that noise reduction measures are implemented properly. Work with Contractor to identify haul routes that avoid sensitive receptors.</li> </ol>	<ol style="list-style-type: none"> <li>During preparation of plans and specifications.</li> <li>During construction.</li> </ol>	
NOI-2	<p><b>Limit Nighttime Construction Noise.</b></p> <p>When feasible, the City and its contractor shall ensure that no construction activities are conducted in close proximity to a residence outside the hours of 7:00 a.m.–9:00 p.m. on weekdays and 9:00 a.m.–9:00 p.m. on Saturdays, Sundays, and state or federal holidays unless a special exemption permit allowed by Modesto Municipal Code Section 4-9.103(b)(6) is obtained.</p>	CSC JP LSC OC OP PL SP	X	<ol style="list-style-type: none"> <li>Include measure in project plans and specifications.</li> <li>Do not conduct construction activities in close proximity to a residence outside of the hours specified in the measure.</li> </ol>	<ol style="list-style-type: none"> <li>Confirm that measure is included in project plans and specifications.</li> <li>Confirm that Contractor follows requirements specified in the mitigation measure.</li> </ol>	<ol style="list-style-type: none"> <li>During development of plans and specifications.</li> <li>During construction.</li> </ol>	

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		Program-level Components	River Trunk Realignment Project				
				Document compliance with this requirement.			
NOI-3	<p><b>Prepare Project-level Noise Analysis for Operation of Proposed Sutter Plant Components</b></p> <p>The City or its contractor(s) shall prepare a project-level noise analysis for operation of proposed Sutter Plant components. The detailed noise study should show that appropriate mitigation measures will be implemented to reduce noise levels to less than a 10-dB increase in residential areas. If the analysis demonstrates that significant operational noise impacts are likely to occur, <b>Mitigation Measure NOI-4</b> shall be implemented. Alternately, the City can assume that the impacts would be significant and implement <b>Mitigation Measure NOI-4</b> without first conducting a noise study under <b>Mitigation Measure NOI-3</b>.</p>	SP	N/A	<ol style="list-style-type: none"> <li>N/A</li> <li>Conduct noise study in accordance with <b>Mitigation Measure NOI-3</b>.</li> </ol>	<ol style="list-style-type: none"> <li>Retain contractor to conduct a noise analysis for the Sutter Plant components.</li> <li>Ensure that noise evaluation meets requirements outlined in <b>Mitigation Measure NOI-3</b>.</li> </ol>	<ol style="list-style-type: none"> <li>Prior to the design phase of Sutter Plant components.</li> <li>Prior to construction of Sutter Plant components.</li> </ol>	
NOI-4	<p><b>Employ Noise-Reducing Methods During Operations</b></p> <p>The City or its contractor(s) shall implement noise-reducing methods so that noise from lift stations does not exceed City or County noise-level standards at adjacent residences. This measure shall also be implemented to achieve City or County noise-level standards for Sutter Plant components if deemed necessary per <b>Mitigation Measure NOI-3</b>.</p> <p>Example measures may include, but are not limited to, the following:</p> <ul style="list-style-type: none"> <li>Locate stationary equipment as far as practical from noise-sensitive land uses;</li> <li>Use electrified or otherwise quieter equipment when practical;</li> <li>Use sound-control devices on equipment that are more effective than devices originally provided on the equipment;</li> <li>Install permanent barriers between noise sources and noise-sensitive land uses, or take advantage of existing barrier features (terrain and structures) to block sound transmission;</li> <li>Limit operations and maintenance-related trucking to specific routes, times, and speeds that minimize adverse effects to sensitive land uses such as schools and residential areas; and</li> <li>Use sound attenuation enclosures designed to achieve noise reductions sufficient to comply with City and County standards for noise-generating elements of the operation, when no other feasible control method is available.</li> </ul>	LSC SP	N/A	<ol style="list-style-type: none"> <li>N/A</li> <li>If necessary, and if directed by the City, implement noise-reducing measures at new or modified facility sites.</li> </ol>	<ol style="list-style-type: none"> <li>For new or modified facilities, conduct site-specific noise analysis to determine if County noise-level standards will be exceeded at adjacent residences during facility operations.</li> <li>If standards will be exceeded, implement noise-reducing measures to reduce noise to below standards.</li> </ol>	<ol style="list-style-type: none"> <li>Prior to or during the design phase.</li> <li>Incorporate measures during design phase. Implement measures during construction.</li> </ol>	
NOI-5	<p><b>Implement Vibration Reduction Measures</b></p> <p>The City of Modesto and/or its contractors shall implement the following vibration-reducing measures during construction activities which could generate substantial vibration to minimize impacts on nearby sensitive receptors:</p> <ul style="list-style-type: none"> <li>Ensure proper tuning of vibration-causing equipment.</li> <li>Use vibration damping devices to the extent feasible.</li> <li>Limit use of vibratory equipment to the extent feasible and do not overlap use of vibratory equipment. Where possible, maintain a distance of 15+ feet from buildings.</li> <li>Require contractor(s) to ensure that impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for construction be hydraulically or electrically</li> </ul>	CSC JP LSC OC OP PL SP	X	<ol style="list-style-type: none"> <li>Include measures in project plans and specifications.</li> <li>Implement and document vibration-reducing measures.</li> </ol>	<ol style="list-style-type: none"> <li>Confirm that measures are included in project plans and specifications.</li> <li>Confirm that measures are implemented properly.</li> </ol>	<ol style="list-style-type: none"> <li>During development of plans and specifications.</li> <li>During construction.</li> </ol>	

Key to program-level Components: CSC = Collection System Components; JP = Jennings Plant; LSC = Lift Station Components; OC = Other Components; OP = Outfall Pipelines; PL = New/Upgraded Sewer Pipelines and Pipeline Rehabilitation; SP = Sutter Plant

Mitigation Measure	Applicable WWMP Improvement		Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
	Program-level Components	River Trunk Realignment Project				
<p>powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever feasible.</p> <ul style="list-style-type: none"> <li>▪ Use electric stationary equipment (e.g., generators) where feasible.</li> <li>▪ Implement noise and/or vibration shields, such as sound aprons or temporary enclosures with sound-absorbing material, on or around construction equipment, particularly if construction activities are conducted after 7:00 pm. For all construction activities occurring within 60 feet of residences at any time of day, install a temporary noise and vibration barrier between the project site and the nearest sensitive receptors. Following the completion of construction activities within that distance, the barrier will be removed.</li> </ul>						
<b>Population and Housing</b>						
None.						
<b>Transportation and Traffic</b>						
None.						
<b>Utilities and Service Systems</b>						
None.						
<b>Other Statutory Considerations</b>						
None.						

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