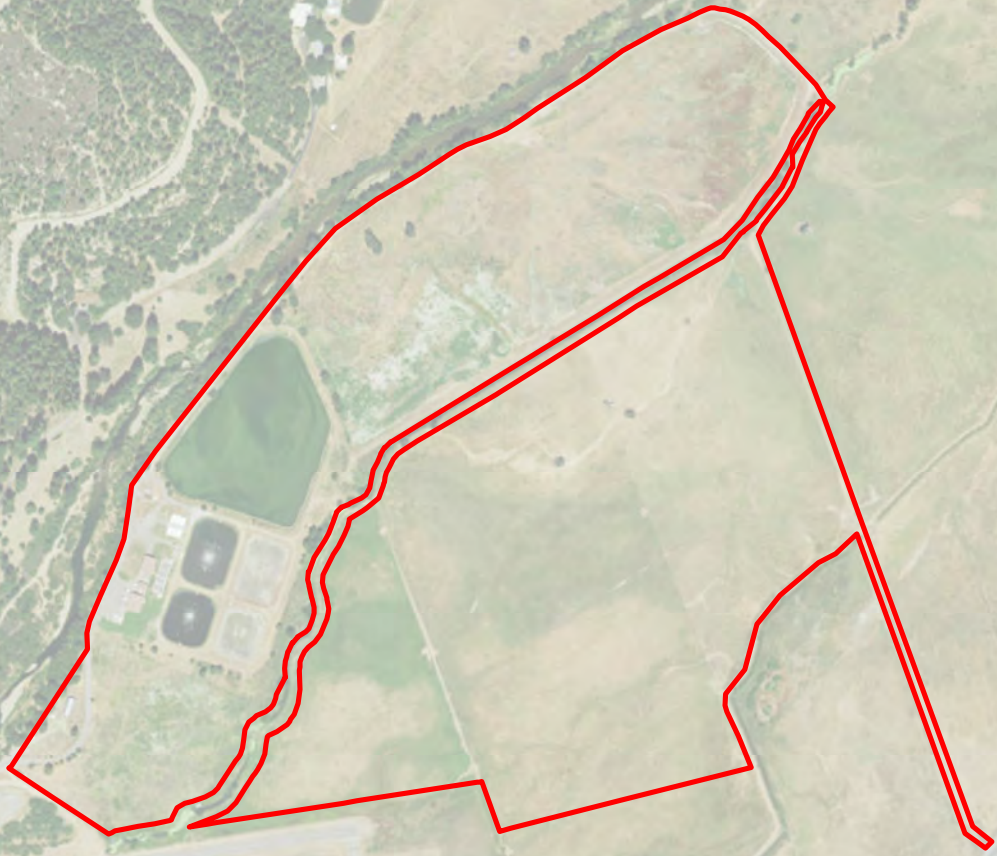


# PROPOSED MITIGATED NEGATIVE DECLARATION and INITIAL STUDY

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**Quincy Wastewater Treatment Plant and Effluent Disposal Project  
Plumas County, California**



*Prepared for:*

**Quincy Community Services District**

December 2016

32-31

**ENPLAN**

# **PROPOSED MITIGATED NEGATIVE DECLARATION**

**LEAD AGENCY:** Quincy Community Services District  
900 Spanish Creek Road  
Quincy, CA 95971

**PROJECT:** The proposed project entails improvements to the Quincy Wastewater Treatment Plant (WWTP) and effluent disposal system, as well as potential installation of a solar photovoltaic (PV) power generation facility of up to 300 kilowatts (kW) and infrastructure improvements to adjacent pastures to maximize discharge potential. The primary purpose of the project is to comply with Central Valley Regional Water Quality Control Board requirements for wastewater treatment and discharge. The proposed improvements would be located primarily within the footprint of the existing WWTP and adjacent pastures, and would include a replacement treatment facility, new effluent disposal system, solar PV panels, and related equipment.

**LOCATION:** The WWTP is located on Spanish Creek Road, east of Highway 89, just north and east of the Gansner Field Airport, in the community of Quincy, Plumas County, California. See Figure 1 of the Initial Study.

**PROJECT PROPOSER:** Quincy Community Services District

**PROJECT NAME:** Quincy Wastewater Treatment and Effluent Disposal Project

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## **FINDINGS**

As documented in the Initial Study, project implementation could affect special-status wildlife species and nesting migratory birds; and result in the fill of jurisdictional waters, disturbance of subsurface cultural resources (if present), spread of noxious weeds, a new source of substantial light or glare, increased soil erosion and water quality degradation, increased air emissions, and temporarily increased noise levels. Design features incorporated into the project would avoid or reduce certain potential environmental impacts, as would compliance with existing regulations and permit conditions. Remaining impacts can be reduced to levels that are less than significant through implementation of the mitigation measures presented in the Initial Study. Because the Quincy Community Services District will adopt mitigation measures as conditions of project approval and will be responsible for ensuring their implementation, it has been determined that the project will not have a significant adverse impact on the environment.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name

\_\_\_\_\_  
Title

# INITIAL STUDY

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## QUINCY WASTEWATER TREATMENT AND EFFLUENT DISPOSAL PROJECT PLUMAS COUNTY, CALIFORNIA

December 2016

*Prepared for:*  
Quincy Community Services District  
900 Spanish Creek Road  
Quincy, CA 95971

*Prepared by:*  
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### Appendix A.

- California Natural Diversity Database RareFind Query Summary
- U.S. Fish and Wildlife Service Species List
- Potential for Federally Listed, Proposed, and Candidate Species, and Special-Status Species Identified by the CNDDDB to Occur on the Project Site
- List of Wildlife Species Observed
- List of Vascular Plant Species Observed

# I. THE PROJECT

## A. Introduction

The Quincy Community Services District (QCSD) is proposing to improve the wastewater treatment and effluent disposal capabilities of the Quincy Wastewater Treatment Plant (WWTP) in order to comply with Central Valley Regional Water Quality Control Board (Central Valley RWQCB) requirements. In addition, the QCSD is proposing to install a solar photovoltaic (PV) power generation facility of up to 300 kilowatts (kW) to offset energy costs, as well as improvements to adjacent pastures to maximize discharge potential. The QCSD owns and operates the WWTP, which provides service to the communities of Quincy, East Quincy, and adjacent areas. Although the neighboring East Quincy Services District (EQSD) maintains a separate wastewater collection system. The WWTP serves approximately 2,787 dwelling unit equivalents (DUE)<sup>1</sup>, consisting mainly of single-family residential and commercial uses, within the combined service area. The WWTP is located on Spanish Creek Road, approximately 0.8 miles east of Highway 89, just north of the Gansner Field Airport, in a semi-rural area of Plumas County, California (Figure 1). The approximately 118-acre project site is located directly east of Spanish Creek, with Clear Stream flowing south to north, bisecting the site. The combined service area boundary of the QCSD and EQSD encompasses approximately 3,174 acres, as shown in Figure 2.

Originally constructed in 1981, the WWTP was designed for average dry-weather flows (ADWF) of 0.72 million-gallons-per-day (MGD) and peak wet-weather flows (PWWF) of 1.2 MGD. The WWTP currently manages an ADWF of 1.05 MGD. The current treatment methodology involves processing influent through biological contactor treatment trains followed by clarification and disinfection. Discharge to Spanish Creek is permitted year-round provided a 20:1 dilution of creek water to effluent is met. However, because of an agreement between the QCSD and neighboring Leonhardt Ranch, the WWTP discharges effluent to Spanish Creek during the non-irrigation season (generally November 1 through May 15). Alternatively, during the irrigation season (generally May 16 through October 31), the WWTP conveys treated effluent to nearby QCSD and Leonhardt Ranch-owned pastures for irrigation of grazing lands. Sludge is occasionally removed from the treatment facility and laid out to dry before disposal at a landfill. See Figure 3 for an aerial photograph of the project site, existing WWTP facilities, and location of pastures that currently receive treated effluent.

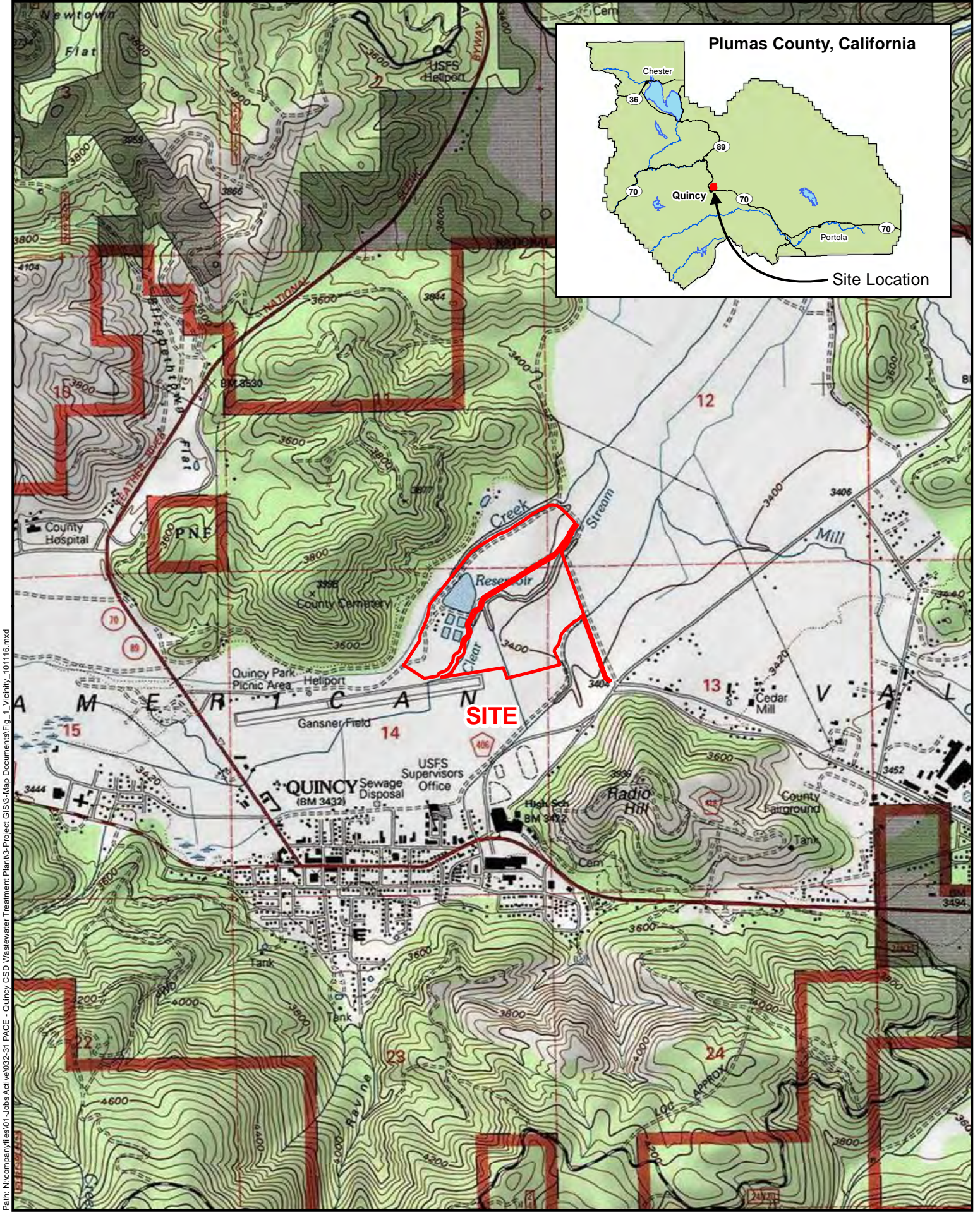
The WWTP has undergone several treatment modifications and upgrades in the past several years. These improvements included occasional replacement of biological contactor media, improved headworks, outfall flow control, and diffuser improvements. Installation of a permanent outfall diffuser in Spanish Creek occurred in summer 2016. With implementation of these improvements, the WWTP currently has an ADWF treatment capacity of 1.25 MGD. The following is an abbreviated step-by-step narrative of the current treatment and effluent discharge processes.

### Collection

A gravity collection system, consisting of collector and interceptor lines, transfers wastewater from sewer connections within the QCSD and EQSD service area boundaries to a pump station, which pumps wastewater to the WWTP.

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<sup>1</sup> Dwelling Unit Equivalents are based on QCSD sewer service billing records for 2015.



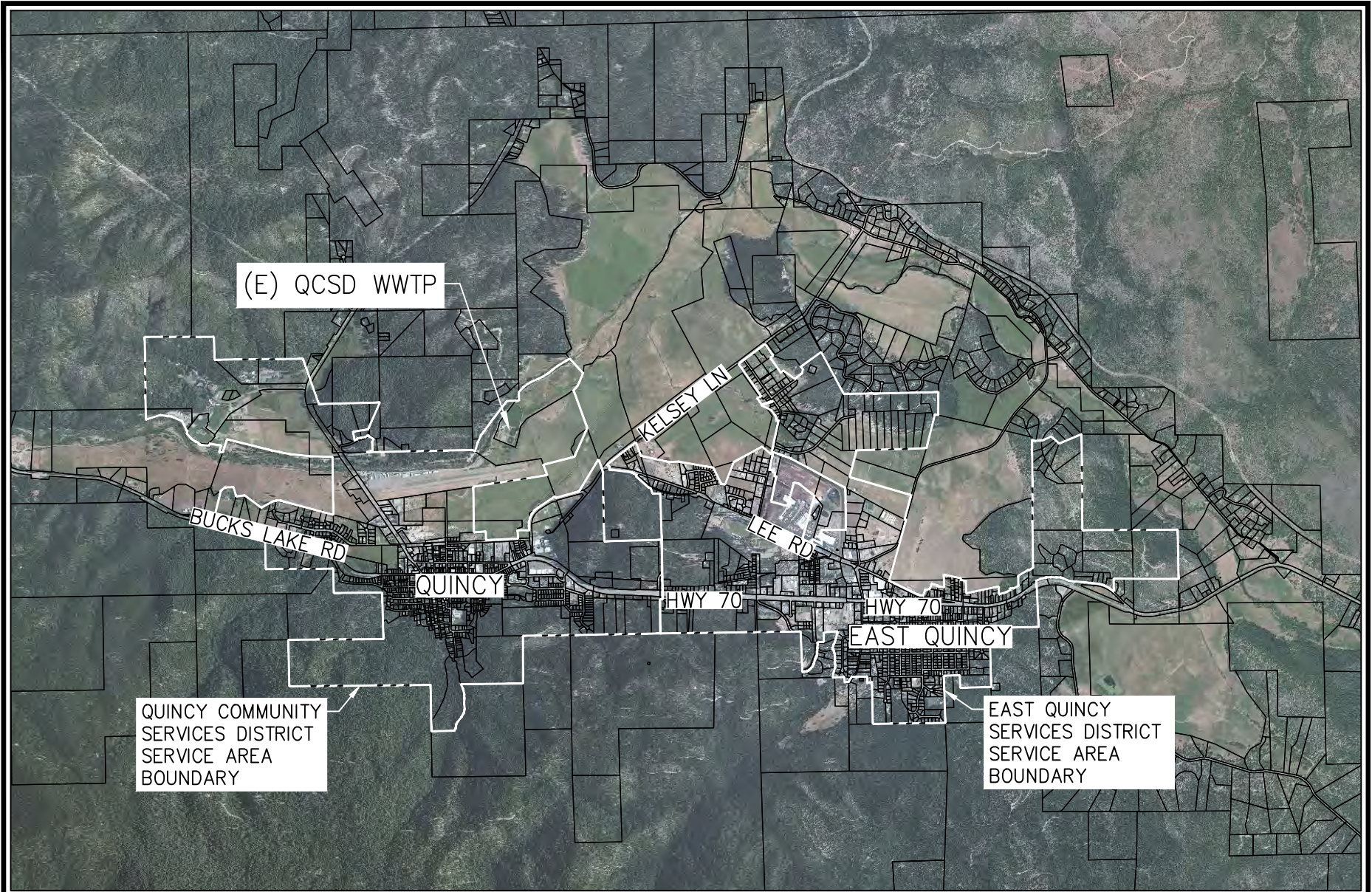
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Figure 1  
Project Vicinity

All depictions are approximate. Not a survey product. 10.11.16





QCSD/EQSD  
COMBINED WASTEWATER  
SERVICE AREA MAP

FIGURE 1  
DATE: 1/16  
JOB 1275.12



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- Spanish Creek Outfall
- Project Boundary
- Existing Land Disposal Areas**
- QCSD-Owned Pastures
- Leonhardt Ranch-Owned Pastures

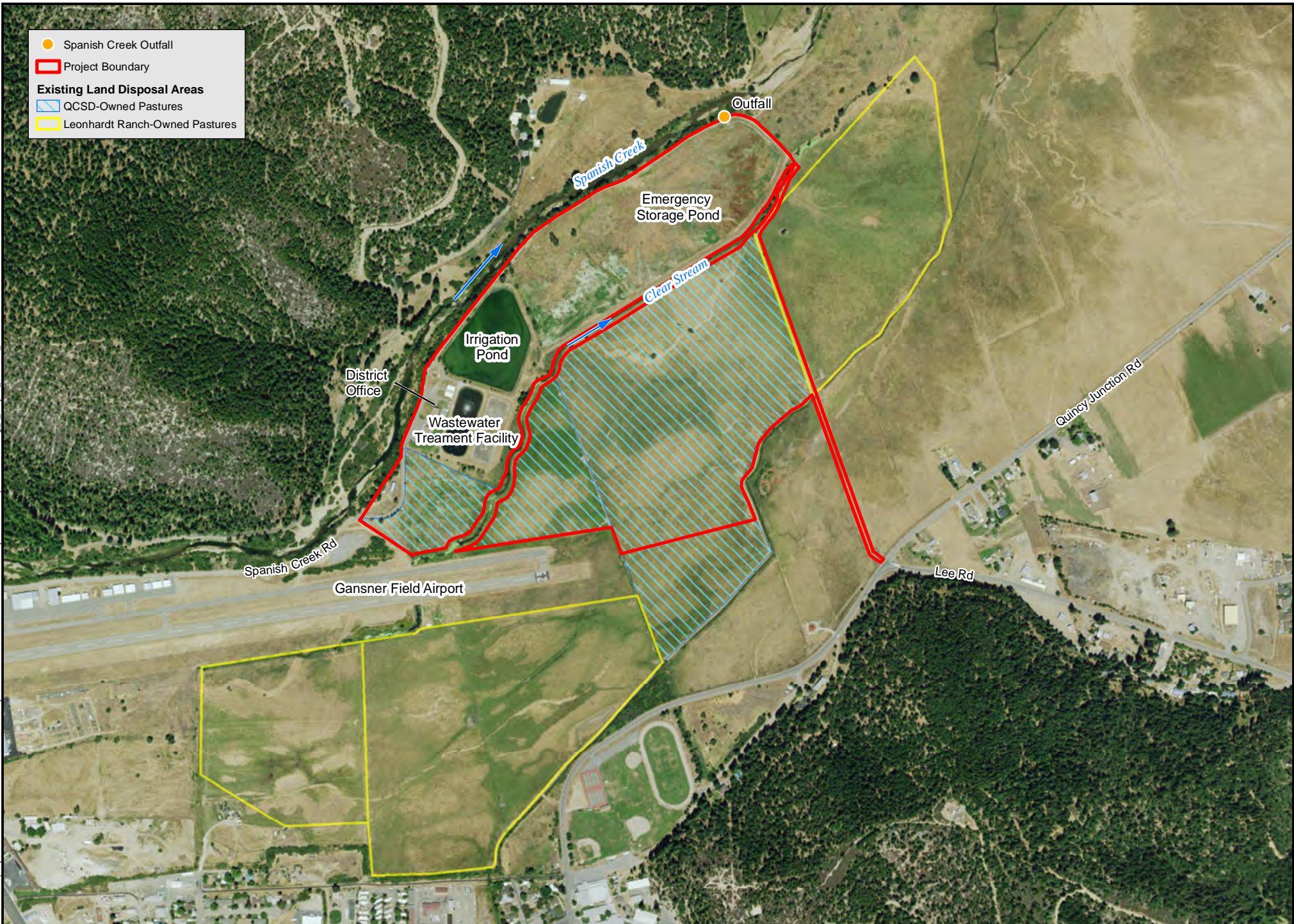


Figure 3  
**Project Location and Existing Facilities**

All depictions are approximate. Not a survey product. 11.30.16

### Headworks

Influent wastewater first enters the headworks, where untreatable debris is removed prior to biological treatment. The current headworks consist of two parallel grinders operated separately by QCSD and EQSD. The QCSD and EQSD influent flow streams exit the grinders and merge before entering a Parshall flume and aerated grit chamber. The combined flow passes through a spiral screen and onto the secondary treatment process.

### Biological Treatment

Flow enters a splitter box, which splits the combined primary flow in two. The two primary flow streams each enter one of two rotating biological contactor treatment trains for biological treatment. Each of these treatment trains consist of three rotating biological contactors. A rotating biological contactor provides a fixed-film biological treatment process in which microorganisms are grown on circular disks mounted on a horizontal shaft that rotates slowly while partially immersed in wastewater. As wastewater progresses through the rotating biological contactors, organics and suspended solids are removed through a combination of aerobic and anaerobic processes. Secondary effluent leaves the treatment trains and travels to the polishing ponds.

### Clarification and Disinfection

Secondary effluent is routed to one of two polishing pond trains for clarification. Each train consists of two ponds. The first pond contains two aerators and the second pond contains one aerator. Once suspended solids are removed, the effluent travels from the ponds to the chlorine contact chamber for disinfection. In the chlorine contact basin, the secondary effluent is dosed with sodium hypochlorite. Subsequently, the chlorinated effluent is dechlorinated using sodium bisulfite and then the treated effluent is routed to one of three locations: the irrigation pond, emergency storage pond, or to Spanish Creek.

### Sludge Processing and Disposal

With the current rotating biological contactor system, solids are stored in the two polishing pond trains. Each year, one of the trains is dewatered and the sludge within the train is allowed to dry during the summer months. Once enough water content has evaporated from the sludge, reducing the overall weight of the material, the sludge is tested, and then hauled off-site for disposal at Altamont Landfill in Livermore, California.

### Treated Effluent Discharge

The QCSD has an agreement with Leonhardt Ranch to convey treated effluent. The agreement is regulated by the Central Valley RWQCB, Order No. 96-180. As part of the Order, during the irrigation season (generally May 16 to October 31), treated effluent is discharged to nearby QCSD and Leonhardt-owned pastures via pipes, ditches, and Clear Stream, for irrigation of grazing land used for non-dairy cattle. A total of approximately 223 acres are accessible for irrigation with treated effluent. Since the original Order, the Leonhardt Ranch and the QCSD have modified the total irrigated area to be about 194 acres, 80 acres of which is now owned by the QCSD. During the non-irrigation season (generally November 1 to May 15), the QCSD discharges treated effluent to Spanish Creek. However, as mandated by the WWTP's NPDES permit, an average daily dilution of 20:1 must be present in Spanish Creek for discharge to occur.

## **B. Project Need and Objectives**

Improvements to the WWTP are needed to: 1) meet Central Valley RWQCB treatment and effluent discharge requirements; 2) offset the QCSD's expected energy costs with a renewable

energy source; and 3) maintain the wastewater treatment capacity for future growth. These needs are discussed in detail below.

## 1. Central Valley RWQCB Requirements

### *Discharge Requirements*

Over the past few years, the QCSD has been unable to meet, or has been at risk of violating, its Waste Discharge Requirements (WDRs). On March 18, 2010, the Central Valley RWQCB adopted WDR Order No. R5-2010-0032 (NPDES No. CA00748981) for the WWTP. At the same time, Cease and Desist Order No. R5-2010-0033 was issued with a compliance schedule. This order stated that the QCSD was unable to comply with new, more stringent effluent copper limitations. The WWTP's effluent copper concentrations exceeded limits set forth in the National Toxics Rule, California Toxics Rule, and the Basin Plan. Furthermore, WDR No R5-2010-0032 indicated that concentrations of ammonia, lead, and silver in the effluent have a reasonable potential to exceed water quality objectives.

In April 2014, the Central Valley RWQCB issued notification to dischargers within the Central Valley Region of the need to comply with final effluent limits for ammonia to protect fresh water mussels, if mussels are deemed to be present in the receiving water. Essentially, dilution credits for ammonia would not be granted if mussels are present. It is still unclear whether the QCSD will have to meet the new 2013 ammonia criteria. However, any treatment improvement designed to remove nitrogen compounds from the effluent would likely allow for consistent compliance with the new ammonia effluent limits.

In June 2016, the Central Valley RWQCB adopted the new WDR R5-2016-0049. Under the new WDR, the QCSD continues to have stringent effluent limits for copper and lead. The permit also contains effluent for nitrate and nitrite. If the QCSD is granted dilution credits, compliance would be easier, but treatment improvements would be needed to consistently comply, especially with ammonia effluent limits.

The new WDR allows year-round discharge to Spanish Creek as long as a 20:1 dilution is met during discharge. Future improvements to the WWTP would allow the QCSD to consistently meet effluent limits at all times throughout the year, and thus, the QCSD would be able to discharge to Spanish Creek year round—effectively eliminating the need for irrigation of adjacent lands. However, there are benefits in maintaining the agreement with the adjoining Leonhardt Ranch: 1) in the event of a treatment plant process upset or mechanical failure that may prevent meeting effluent limits for discharge to Spanish Creek, the QCSD can instead irrigate the adjacent lands; 2) the QCSD may choose to ease its regulatory burden when discharging to Spanish Creek by irrigating adjacent lands; and 3) utilizing treated effluent to irrigate grazing lands reduces the need to pump irrigation water from Spanish Creek; thus, leaving more water available in Spanish Creek for other users. If the agreement between Leonhardt Ranch and the QCSD is severed, the QCSD would improve the QCSD-owned pastures to maximize effluent disposal potential. Treated effluent would be conveyed to the QCSD-owned pastures via Clear Stream (which is currently used as a holding basin for creek or effluent water), or a new irrigation pump which would be installed to convey the treated effluent across Clear Stream.

The following provides an overview of the wastewater treatment deficiencies, and structural and operational issues associated with the WWTP. Additional detail is provided in the *Final Preliminary Engineering Report and Feasibility Study* (Feasibility Study) dated October 2016, prepared by PACE Engineering, Inc. for the project.

- The nitrogen removal process of the treatment plant must be improved to meet the more stringent limits in the 2016 NPDES permit. The rotating biological contactor system was not initially designed as a nitrogen removal process so while the system does remove some nitrogen, it does not remove an adequate amounts of ammonia to meet the limits.
- The treatment process must be improved to consistently remove other constituents, such as copper and lead, as identified in the NPDES permit. Currently, the WWTP does not have the ability to remove these metals.
- The WWTP must meet stringent effluent limits for 5-day biochemical oxygen demand, and total suspended solids, as identified in the NPDES permit. The WWTP has difficulty meeting these requirements consistently.
- The current disinfection system—a combination of liquid chlorine to kill pathogens and sodium bisulfite to remove chlorine residual prior to discharge—should be replaced by another means of disinfection. The lack of effluent filtration has been problematic in that the presence of suspended solids has led to very high chlorine and sodium bisulfite doses and associated expensive chemical costs. Further, use of chlorine at WWTPs achieving low effluent ammonia concentrations has led to the formation of disinfection byproducts, such as dichlorobromomethane, a regulated carcinogen.

#### *New Biosolids Disposal Requirements*

To comply with the NPDES permit, a biosolids use or disposal plan must be developed to manage sludge. The biosolids management plan must specify appropriate handling, testing, dewatering, transportation, and disposal procedures for this material.

#### *Aging Infrastructure*

As mentioned previously, the QCSD's existing WWTP was constructed in 1981. The rotating biological contactors media were replaced in 2002 and 2004; however, the rotating biological contactors are over 34 years old and nearing the end of their useful life. These units were not designed to meet the modern treatment requirements in the NPDES permit. The existing emergency storage pond dikes are aging and starting to leak. The Central Valley RWQCB has indicated that leaks constitute an unauthorized discharge. Attempts to make repairs have been unsuccessful thus far.

## **2. Wastewater Treatment Capacity**

The wastewater treatment capacity of the existing WWTP provides for an ADWF of up to 1.25 MGD, or 3,300 DUEs. As previously noted, the WWTP currently serves approximately 2,787 DUEs. Of the remaining 513 DUEs, 232 DUEs are allotted for projected growth within EQSD's service area, and 90 DUEs are allotted for a planned senior center and hospital expansion. The remaining 191 DUEs would be available for future growth for the entire combined service area through 2035. Any improvements to the WWTP to meet Central Valley RWQCB treatment and effluent discharge requirements must maintain the current treatment capacity.

## **3. Energy Costs Savings**

The QCSD requires electricity to operate the treatment plant, pump stations, and administrative offices. Pumping of water is a major expense for the QCSD. Recently, over the month of

August, electricity usage was approximately 58 kW and cost the QCSD \$4,075.26<sup>2</sup>. With a new treatment facility, which would provide a higher degree of treatment, energy consumption is expected to increase. The QCSD's energy needs are currently met by Plumas-Sierra Rural Electric Cooperative.

To save on expected energy costs, the QCSD may meet its energy needs through the installation of a solar PV power generation facility. According to the Feasibility Study, a solar facility generating up to 300 kW of capacity would be required to provide for 50 percent solar reliance for the new treatment facility. According to PACE Engineering, Inc., because the solar facility would be expected to receive an average of only four hours of direct sunlight and five hours of partial sunlight each day, which is equivalent to 6.5 hours of direct sunlight each day, the solar facility must be sized to produce enough power for an entire 24-hour period while receiving only 6.5 hours of sunlight. Thus, a 300-kW facility would be the appropriate size to provide for QCSD's expected energy needs. Installation of the facility is dependent on the amount of funding that the project receives.

### **C. Project Description**

The QCSD is proposing to construct improvements to the WWTP in order to comply with Central Valley RWQCB requirements, maintain the capacity of the treatment facility to meet future demand, and offset expected QCSD energy costs. Proposed improvements to the QCSD-owned pastures are primarily dependent on whether the agreement with Leonhardt Ranch for discharge to Leonhardt Ranch-owned pastures remains in place. Installation of the proposed solar panels is dependent on funding. The following improvements would occur within the existing footprint of the WWTP and QCSD-owned pastures (Figure 4), and are described below.

#### **1. Proposed Physical Improvements**

##### *Treatment Facility*

The existing rotating biological contactor treatment system would be replaced with a more effective biological treatment system. Utilizing the existing headworks that would be expanded and improved, the new treatment system would feature an Aero-Mod SEQUOX® facility and associated infrastructure. This facility would be located within the footprint of the existing polishing ponds. Approximately 23,114 linear feet of new pipeline would be installed leading to and from the treatment facility. As shown in Figure 5, the following new treatment facility elements would include:

- Headworks Modifications and Self-Cleaning Screens
- Equalization Basins
- Aero-Mod SEQUOX® Aeration Basins
- Aero-Mod Secondary Clarifiers
- Aero-Mod Digesters
- Disk Filters
- Ultraviolet Disinfection System
- Filter and Disinfection Building

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<sup>2</sup> Based on the billing summary from Plumas-Sierra Rural Electric Cooperative for August 4, 2016 to September 1, 2016 for the QCSD WWTP.

Path: N:\comparifiles\01-Jobs Active\032-31-PACE - Quincy CSD Wastewater Treatment Plant\3-Project GIS\3-Map Documents\Fig 4 Site Plan 112916.mxd

- Spanish Creek Outfall
- WWTP Improvements
- Outfall Pipeline Alternative 1
- Outfall Pipeline Alternative 2
- Run-Off Return Pipeline
- Irrigation Pipeline
- Effluent Return Ditch
- Lift Station
- Pump Station
- Solar PV Power Generation Facility
- Irrigation Berms
- QCSD-Owned Pastures
- Project Boundary

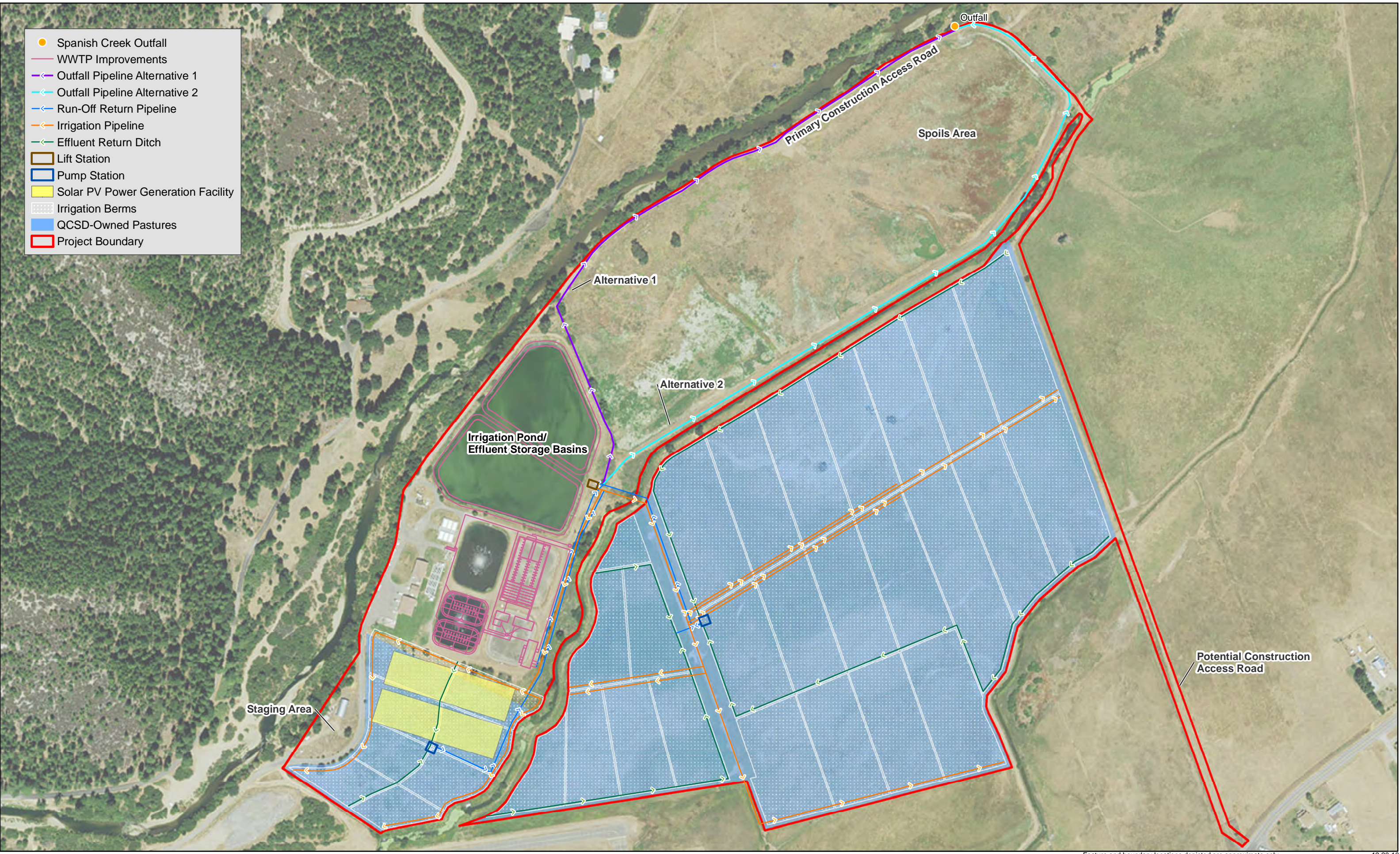
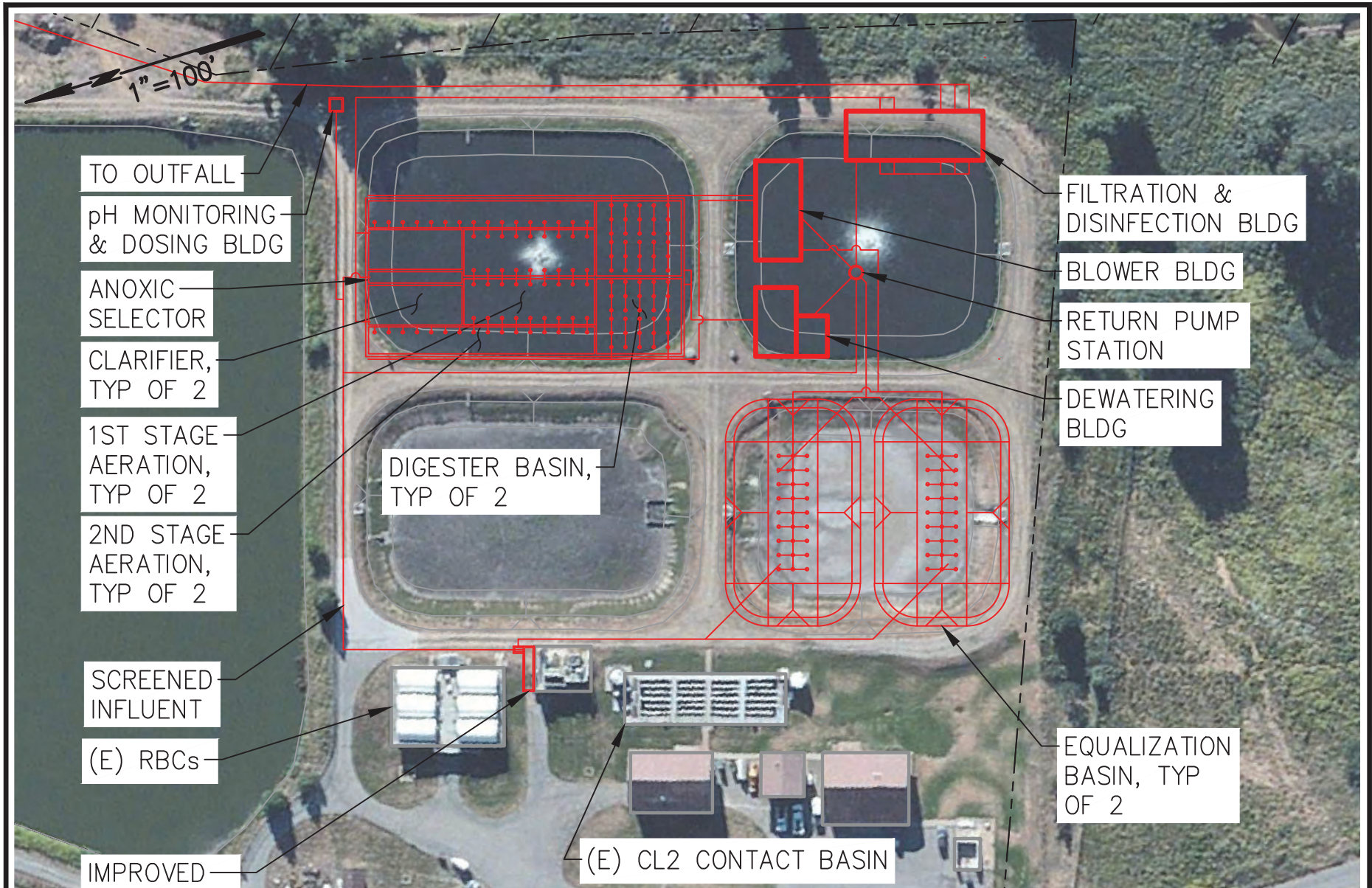


Figure 4  
**Proposed Improvements**

Feature and boundary locations depicted are approximate only.  
 This is not a survey product.

12.20.16

ENPLAN



TO OUTFALL

pH MONITORING & DOSING BLDG

ANOXIC SELECTOR

CLARIFIER, TYP OF 2

1ST STAGE AERATION, TYP OF 2

2ND STAGE AERATION, TYP OF 2

SCREENED INFLUENT

(E) RBCs

IMPROVED HEADWORKS

DIGESTER BASIN, TYP OF 2

(E) CL<sub>2</sub> CONTACT BASIN

FILTRATION & DISINFECTION BLDG

BLOWER BLDG

RETURN PUMP STATION

DEWATERING BLDG

EQUALIZATION BASIN, TYP OF 2



QCSD/EQSD  
 WWTP FEASIBILITY STUDY  
 QCSD PRELIMINARY AEROMOD  
 SITE LAYOUT

FIGURE 5  
 DATE: 1/16  
 JOB #1275.21

- Blower Building
- Sludge Dewatering Equipment and Building
- Generator
- Control and Blower Building

### *Effluent Disposal*

As shown in Figure 4, the following new effluent disposal elements would include:

- An outfall pipeline from the new treatment facility to the Spanish Creek outfall. The pipeline would be located at one of the following alternative locations:
  - Alternative 1: The outfall pipeline would be installed along the northern perimeter of the existing emergency storage pond, along an existing access road.
  - Alternative 2: The outfall pipeline would be installed along the southern perimeter of the existing emergency storage pond, along an existing perimeter dike.

In the event that Leonhardt Ranch pastures are no longer available for treated effluent disposal, the QCSD's existing 80 acres of pasture, or the improved land disposal area, would be maximized for effluent disposal. Specific improvements would include:

- Recontouring of the site and installation of a series of berms in the improved land disposal area.
- Installation of irrigation pipeline from the new treatment facility to the improved land disposal area.
- Installation of run-off return pipeline from the improved land disposal area, back to the new treatment facility.
- Construction of effluent return ditches to collect and deliver excess effluent from the improved land disposal area to the new treatment facility.
- Construction of one lift station and two pump stations to push water back and forth between the new treatment facility and the improved land disposal area.

### *Solar Power Generation*

Solar PV panels may be installed on QCSD-owned lands just south of the WWTP. The solar PV panels would cover approximately 2.5 acres and likely generate up to 300 kW of power once operational. In addition to the solar PV panels, inverters, and related electrical equipment (e.g., electrical line, circuit breakers) would be installed. The solar PV panels would be non-reflective and would convert sunlight directly into electricity. Although the exact site design and layout of the solar PV panels is yet to be determined, the panels would be mounted in uniform rows on steel piers and are not expected to exceed 12 feet tall. The panels would be south-facing, and would either be fixed in a tilted position and oriented to maximize absorption of sunlight, or alternatively, would be integrated with a single-axis, horizontal solar tracking system configured to optimize energy production by following the path of the sun throughout the day. An equipment pad containing inverters and a switchgear would be connected to the solar PV panels via underground polyvinyl chloride (PVC) conduits. The equipment pad would be connected via an overhead or underground electrical line to a nearby Plumas-Sierra Rural Electric Cooperative transformer.



## 2. Proposed Operational Procedures

With implementation of the proposed improvements, the capacity of the WWTP would be maintained to accommodate an ADWF of up to 1.25 MGD. This capacity allocates for anticipated future growth through 2035.

The new treatment facility would employ an Aero-Mod SEQUOX® facility. This process uses microorganisms to feed on organic constituents in the wastewater, producing a high-quality effluent. The system includes concrete common-wall construction to form two parallel treatment trains, each consisting of an anoxic selector, aeration basin, aerobic digester, and clarifier. A preliminary diagram of the proposed process is shown in Figure 6. The new treatment and discharge processes would include the following steps:

### Collection

The existing collection system would not change with implementation of the proposed improvements.

### Headworks

Influent from the collection system would pass through one of two self-cleaning spiral screens to remove large debris. Screenings would be deposited in a dumpster for disposal. Screened effluent would gravity-flow to the aerated treatment basins.

Equalization basins would be provided to capture peak flows in excess of the new treatment system's peak design flow. This excess flow would be diverted to one of two equalization basins and metered back into the treatment system when flows decrease below the treatment system's peak design flow. In lieu of the equalization basins, it may be possible to oversize the secondary clarifiers. This would require any downstream processes to be sized for peak flows (i.e., filtration, disinfection, effluent disposal facilities, etc.).

### Settling, Denitrification, and Mixing

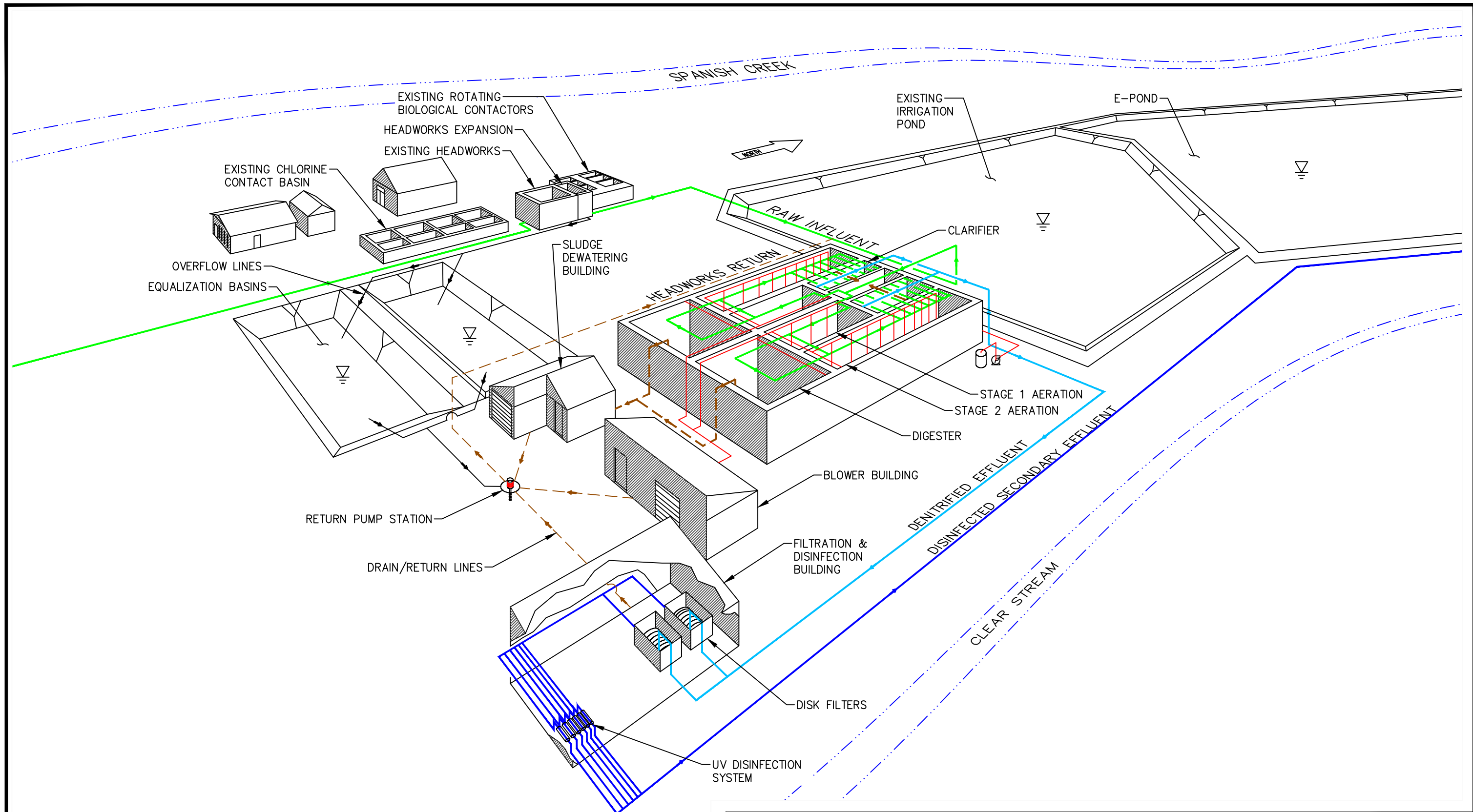
Screened influent would exit the headworks and first enter an anoxic selector that would promote bacterial growth while returning nitrate to the front of the treatment process for denitrification. To accomplish this, influent would be mixed with return activated sludge (sludge particles produced in the aeration basins) from the two clarifiers. A wall-mounted coarse-bubble aeration system would deliver large quantities of oxygen to provide mixing and keep solids in suspension.

### Stage 1 Aeration

Effluent from the anoxic selector would be diverted to one of the two Stage 1 aeration basins where the biological reactions would occur. A wall-mounted fine-bubble aeration system would provide continuous mixing and dissolved oxygen for biochemical oxygen demand consumption, ammonification, and nitrification.

### Digesters

A portion of the mixed liquor (the concentration of suspended solids) formed in the Stage 1 aeration basins would be transferred to one of the two aerobic digesters by air-lift pumps, as waste activated sludge (excess sludge particles not returned to the anoxic selector). A wall-mounted aeration system would provide aeration and mixing to the digester sludge. Digester supernatant (a relatively clear liquid that is removed from settled sludge) would travel over a weir into the anoxic selector to be blended with influent wastewater and return activated sludge.



QCSD/EQSD  
 PRELIMINARY TREATMENT  
 PROCESS DIAGRAM

FIGURE 6
DATE: 1/16
JOB # 1275.21

Plot Date: February 05, 2016 - 7:35 am Login Name: gmaxwell  
 File Name: M:\Land Projects\1275.21 QCSD EQSD WTP Feasibility Study\DWG\AeroMod Process Diagram.dwg, Layout: 11x17

The sludge retained in the digesters would settle to the bottom and undergo stabilization for an average of 60 days before conveyance to the dewatering facility.

### Stage 2 Aeration

Remaining effluent from the Stage 1 aeration basins would pass to the Stage 2 aeration basins through blockouts in the interior walls. Similar to Stage 1, a wall-mounted coarse-bubble aeration system would provide sequenced aeration that would allow for simultaneous nitrification and denitrification.

### Clarification

Stage 2 effluent would be drawn from the surface of the aeration basins through outlet screens and dispersed along the bottom of one of two clarifiers. An air-lift pump would remove sludge at timed intervals from eight stationary suction hoods. Some sludge would be returned as return activated sludge to the anoxic selector. Clarified effluent (in which solids have settled and are separated from treated wastewater) would exit the clarifier through submerged effluent weirs. These weirs would allow the effluent flow to be regulated so that surges in influent flow could be absorbed by utilizing the clarifiers as retention basins.

### Filtration

Clarified effluent would travel to one of two cloth disk filters for further removal of total suspended solids. Each of these filters consists of a water-filled, above-ground basin containing a vertical shaft. Several filter disks are located along the horizontal shaft and each disk is comprised of six sectors covered with a cloth filter media. Secondary effluent enters the basin through an inlet pipe and fills the tank. The hydraulic head in the basin forces water through the disk filters. This water is filtered by the cloth media as it passes to the interior of each disk. As the filters become clogged with captured particles, the filter rate slows and a backwash is initiated. A fixed suction head, or backwash shoe, is located on each disk. During a backwash cycle, the disks begin to rotate and a backwash pump pulls filtered water from the interior of the disk through the filter cloth and out the backwash shoe. Particulates trapped within the cloth media are removed by the reversed flow. This type of filter would not require the entire filter to shutdown to perform a backwash. An enclosure over the filter would help to protect the filter from the environment and limit the amount of algal growth.

### Ultraviolet Disinfection

Filtered effluent would be received by one of six UV vessels. Each of the UV vessels would contain 72 UV lamps. The UV vessels would be within the same building as the disk filters to reduce exposure to the environment. Ideally, disinfected effluent leaving the UV system can gravity flow to Spanish Creek provided dilutions ratios are met. However, it may be necessary to pump treated effluent if headloss in the effluent pipeline is too large. The need for pumping is difficult to determine without knowing the exact equipment to be utilized and pipeline alignments. As such, further investigation of pumping requirements would be required during the design phase. Alternatively, effluent could be pumped to the QCSD-owned pastures.

### Sludge Processing and Disposal

The sludge retained in the digesters undergoes stabilization for 60 days before conveyance to the dewatering facility in order to achieve a Class B<sup>3</sup> sludge designation. Alternatively, the digesters could be downsized to save costs if the QCSD decides to comply with lesser disposal site requirements and forego the Class B sludge designation.

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<sup>3</sup> "Class B biosolids" is a designation for treated sewage sludge that meets U.S. Environmental Protection Agency guidelines for land application with certain restrictions.

A centrifuge or another dewatering alternative, such as a rotary fan press, would dewater the aerobically digested sludge to reduce water content before hauling to the landfill. The dewatering facility would be enclosed in a separate building to protect equipment and electrical/control facilities. The facility would consist of a sludge grinder and pumping facilities, polymer blending system, elevated centrifuge, and conveyors. The addition of a polymer would be required to achieve optimal solids concentrations. Supernatant from the sludge would be returned to the anoxic selector for further treatment. The dewatering facility would be required to run approximately four hours each day. Sludge would be weighed on a scale and then hauled to a landfill once every four days. Sludge would likely be contained in an 18-yard covered dumpster that can be quickly transferred to a haul truck.

### Treated Effluent Discharge

With implementation of the proposed improvements to the treatment facility and given that the 2016 NPDES permit's discharge requirements are met, treated effluent could be discharged to Spanish Creek year round. However, as described previously, the QCSD intends to continue its existing discharge practices, where effluent would be discharged to approximately 223 acres of QCSD and Leonhardt Ranch-owned pastures. Regardless of disposal methods, the volume of treated effluent would not increase beyond the existing treatment capacity of 1.25 MGD.

In the event that Leonhardt Ranch pastures are no longer available for treated effluent disposal, the QCSD would still have the option to discharge to QCSD-owned pastures. If the pastures are improved, the effluent from the WWTP would be conveyed to the improved land disposal area via a new irrigation pump. The effluent would then be sent through a series of pipelines to flood irrigate different sections of the approximately 80 acres of land. The improved land disposal area would be partitioned off into "cells" by a system of berms. In addition, the cells would be graded so that excess effluent would drain towards the effluent return ditches. The cells would receive equal volumes of effluent. Excess effluent would be directed to an effluent return ditch that would return the effluent back to the headworks or to the equalization basins via pump stations.

The new effluent pipeline from the treatment facility to the Spanish Creek outfall would result in more efficient water conveyance because effluent would be discharged through a gravity-fed pipeline instead of being held in the emergency storage pond where water exits the pond into Spanish Creek during high flows only.

Flows in excess of the daily design capacity would be held in the equalization basins and slowly metered back into the treatment plant when flows decrease. Depending on Central Valley RWQCB requirements pertaining to the existing irrigation pond, lining of the pond may be necessary for effluent storage. Specifically, it may be necessary to drain the irrigation pond in order to: 1) test permeability of the existing pond; and 2) possibly install an impermeable liner. As such, and in the long-term operation of the project, effluent would only be present in the effluent storage basins during irrigation periods or instances when effluent limitations associated with discharging to Spanish Creek cannot be met.

### Energy Usage

If the solar PV panels are installed, the QCSD would utilize the Renewable Energy Self-Generation Bill Credit Transfer (RES-BCT) program. The RES-BCT program (formerly AB 2466) was established by the Legislature effective January 1, 2009, and is codified in Section 2830 of the Public Utilities Code. It allows a local government, such as the QCSD, with one or more eligible renewable generating facilities to export energy to the grid and receive generation

credits to benefitting accounts of the same local government. Using RES-BCT, the QCSD can take advantage of cost-effective, ground-mounted solar photovoltaic systems as opposed to higher-cost carport or rooftop systems.

### **3. Construction Considerations**

#### *Demolition and Abandonment*

Existing WWTP infrastructure such as the biological contactors and remaining polishing ponds would be demolished once the new WWTP facility is operational. Solids contained in the existing polishing ponds would be removed prior to demolition or new construction. Any spoils generated during construction of the land disposal area would be placed in the abandoned emergency storage pond. Remaining areas in the emergency storage pond would be allowed to be naturally inundated by rain and snowmelt, and it would continue to support waterfowl and other wildlife species.

#### *Construction Schedule and Activities*

An unimproved ranch road from Quincy Junction Road to the WWTP may be utilized to facilitate construction activities. This road may require some rough grading and gravelling depending on the contractor's desired use of the road.

Up to approximately 10,000 cubic yards of fill material would be hauled to the project site where all of the fill would be utilized in the land disposal area for berms and site balance of cut and fill volumes as part of the flood irrigation design. Haul trucks are expected to utilize Spanish Creek Road but may also utilize the unimproved ranch road from Quincy Junction Road to the WWTP.

Construction equipment likely to be used for the replacement treatment plant, effluent disposal system, and potential installation of solar PV panels would include: compactor, bulldozer, excavator, dozer, loader, grader, track excavator with vibratory equipment, dump truck, backhoe, concrete truck (as necessary), boring equipment (if necessary), water trucks, and pick-up trucks.

In regards to installation of the solar PV panels, piers would be driven into the ground (up to six feet below grade) for the steel support structures, panels would be erected, and an electrical equipment pad would be installed. The inverters and switchgear would also be installed, followed by trenching and installation of PVC conduit between the equipment pad, solar PV panels, and tie-in location at a nearby Plumas-Sierra Rural Electric Cooperative transformer.

Ongoing raw material and equipment deliveries to the site would take place throughout the construction period. Construction of the proposed treatment facility, effluent disposal improvements, and potential installation of solar PV panels, would require approximately 21 months for completion, and would occur between June 2019 and December 2021, over two years.

### **D. Permits and Approvals**

The following permits and approvals will or may be needed prior to implementation of the proposed project.

- QCSD – Adoption of a Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program for the proposed project.

- State Water Resources Control Board – General Construction Activity Storm Water Permit and preparation of a Storm Water Pollution Prevention Plan (SWPPP).
- Central Valley RWQCB – Clean Water Act Section 401 Certification.
- U.S. Department of Agriculture, Rural Development – NEPA approval for funding.
- State Water Resources Control Board – NEPA approval for funding from the State Revolving Fund.
- State Historic Preservation Officer – NEPA approval through consultation with the federal lead agency, for the purposes of protecting cultural resources.
- U.S. Army Corps of Engineers – Clean Water Act Section 404 Permit for discharge of fill to Waters of the U.S.
- California Department of Fish and Wildlife – Section 1600 Lake and Streambed Alteration Agreement.
- Plumas County – Airport Land Use Commission review/approval of the proposed changes in land use within the airport influence area.
- Plumas County – Special Plan-Review Committee review/approval of the proposed improvements within the Combining Zone for Special Plan Scenic Areas (SP-ScA).

## II. ENVIRONMENTAL SETTING

*General Plan Designation:* The Plumas County General Plan land use designations for the project site are Rural Residential and Agricultural Preserve. Additionally, a portion of the project site (encompassing a portion of the WWTP and one pasture to the south) is located in the Quincy/American Valley expansion planning area of the Plumas County General Plan.

*Zoning:* The site is zoned by Plumas County as Rural 10-acre (R-10) and Agricultural Preserve (AP). In addition, the majority of the project site is within a Combining Zone for Mobile Homes (MH) and Farming (F), and a smaller portion of the project site is designated as within a Combining Zone for Special Plan Scenic Areas (SP-ScA) and Farming (F).

*Surrounding Land Uses:* South and east of the site, land is undeveloped and currently utilized for cattle grazing. The Gansner Field Airport is located south and southwest of the project site. North and west of the project site, land is sparsely developed with some residential land uses.

*Topography:* The project site is located approximately 3,400 feet above sea level, and is relatively flat. Quail Ridge, located northwest of the site, features an elevation of approximately 3,998 feet above sea level. Radio Hill, located southeast of the site, features an elevation of approximately 3,938 feet above sea level.

*Soils:* According to the Natural Resources Conservation Service, soils within the project site are mapped as Greenhorn Loam (0 to 1 percent slopes) and Keddie Loam (0 to 2 percent slopes). Greenhorn Loam is the dominant soil across the project site.

*Vegetation:* Vegetation communities present at the WWTP are described below.

Treatment Facility: The treatment facility is almost fully developed but supports a ruderal plant community on the edges of driveways, in storage areas, and on other compacted soils. Typical plant species include: English plantain, yellow star-thistle, jointed charlock, common knotweed, red-stemmed filaree, and rip-gut brome.

Emergency Storage Pond: The emergency storage pond is partially inundated with treated effluent during the wet season but is dry during the summer. The pond supports a very weedy plant association with representative species including shortpod mustard, mayweed, poison hemlock, Japanese brome, hairy chess, six-weeks fescue, and quack grass.

Land Disposal Area: The pastures to the southeast of the WWTP are supported by discharge of treated effluent from the WWTP during the non-discharge season. Representative plants within this grass-dominated community include: common velvet grass, tall fescue, Kentucky bluegrass, meadow foxtail, tufted hairgrass, ox-eye daisy, and black medick. The pasture south of the WWTP is moderately disturbed from regular mowing activities and periodically receives discharge of treated effluent. This pasture, which does not appear to be recently grazed, supports a different plant community than the grazed pastures, with a much greater diversity and abundance of forbs. Representative plants include: shortpod mustard, poison hemlock, mayweed, common tansy, wild teasel, smooth brome, and rye.

*Water Features:* The project site is located near two streams, Clear Stream and Spanish Creek. The project site includes six constructed ponds associated with the WWTP as well as ditches and extensive wetlands in the improved land disposal area. All of the onsite waters are tributary to Spanish Creek and eventually to the Nork Fork of the Feather River.

### III. ENVIRONMENTAL CHECKLIST FORM

#### A. Environmental Factors Potentially Affected

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

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

#### B. Determination (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION has been prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a significant effect(s) on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Larry Sullivan  
Name

Date

12/27/2016  
General Manager  
Title



## C. Evaluation of Environmental Impacts

This section analyzes the potential environmental impacts associated with the proposed project. The issue areas evaluated in this Initial Study include:

- |                                       |                                   |                                      |
|---------------------------------------|-----------------------------------|--------------------------------------|
| ■ Aesthetics                          | ■ Greenhouse Gas Emissions        | ■ Population and Housing             |
| ■ Agricultural and Forestry Resources | ■ Hazards and Hazardous Materials | ■ Public Services                    |
| ■ Air Quality                         | ■ Hydrology and Water Quality     | ■ Recreation                         |
| ■ Biological Resources                | ■ Land Use and Planning           | ■ Transportation/Circulation         |
| ■ Cultural Resources                  | ■ Mineral Resources               | ■ Utilities and Service Systems      |
| ■ Geology and Soils                   | ■ Noise                           | ■ Mandatory Findings of Significance |

The environmental analysis in this section is patterned after the Initial Study Checklist recommended in the State CEQA Guidelines. For the preliminary environmental assessment undertaken as part of this Initial Study, a determination that there is a potential for significant effects indicates the need to more fully analyze the project's impacts and to identify mitigation.

For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. The analysis considers the long-term, direct, indirect, and cumulative impacts of the project. To each question, there are four possible responses:

- **No Impact.** The development will not have any measurable environmental impact on the environment.
- **Less-Than-Significant Impact.** The project will have the potential for impacting the environment, although this impact will be below established thresholds that are considered to be significant.
- **Potentially Significant Impact Unless Mitigation Incorporated.** The project will have the potential to generate impacts which may be considered as a significant effect on the environment, although mitigation measures or changes to the project's physical or operational characteristics can reduce these impacts to levels that are less than significant.
- **Potentially Significant Impact.** The project will have impacts which are considered significant, and additional analysis is required to identify mitigation measures that could reduce these impacts to less than significant levels.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**1. AESTHETICS.** Would the project:

- |  |                          |                                     |                                     |                                     |
|--|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a. Have a substantial adverse effect on a scenic vista?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c. Substantially degrade the existing visual character or quality of the site and its surroundings?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?                                    | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |

**Discussion**

**a, c.**

Views of the project site include the existing WWTP and irrigated pastures, with the Gansner Field Airport in the immediate vicinity. Viewers of the project site primarily include local ranchers. The proposed project consists of improvements to the wastewater treatment and effluent disposal facilities, and installation of solar PV panels, in an area supporting predominantly rural land uses.

The project site is not located in a sensitive viewshed and the site has no special scenic qualities. Project implementation would result in some vegetation removal; removal of any trees is unlikely. The resulting visual character of the site would be consistent with that of the project vicinity. Although the Plumas County General Plan does not identify the project site as a scenic viewshed area, a portion of the improved land disposal area is located in a Combining Zone for Special Plan Scenic Areas (SP-ScA), which may be subject to a special plan review as described in Section 9-2.3703 of the Plumas County Code of Ordinances. Regardless, the proposed project would not have a substantial adverse effect on a scenic vista, nor would it result in substantial degradation of the existing visual character and quality of the site and its surroundings. Potential visual impacts resulting from the project implementation would be less than significant.

**b.**

There are no officially designated State Scenic Highways in Plumas County; thus, project implementation would not damage scenic resources within a designated State Scenic Highway. Highway 89, from the northern portion of Lake Almanor to the southern limits of Plumas County, is designated as an Eligible State Scenic Highway by Caltrans. However, the project site is located approximately 0.7 miles from this designated stretch of highway, and is separated from the highway by buildings associated with the Gansner Field Airport, and thus, would not be visible from the highway.

**d.**

The replacement treatment facility would include new sources of exterior lighting for security purposes. However, the new lighting would be similar in scale and type to existing facility lighting, and would not be a new source of substantial light. The potential for glare could be increased by window surfaces, and exterior materials/coatings; however, these types of surfaces would be minimal and nearby residents would be screened by existing vegetation that lines the perimeter of the property. Some solar PV panels can be a source of glare, which could affect motorists on Spanish Creek Road, or aircraft pilots utilizing Gansner Field Airport. According to a study conducted by the Federal Aviation Administration (FAA), *Evaluation of Glare as a Hazard for General Aviation Pilots on Final Approach*, visual "impairment was perceived as being worse for glare sources that are straight ahead of the pilot and of longer duration, with a gradual decline in impairment as the glare source moves toward the side of the pilot." Specifically, the results of the study indicated that sources of glare at an airport could be

mitigated if the angle of the glare is greater than 25 degrees from the direction that the pilot is looking. Thus, because the proposed solar PV panels would be installed to the north of the runway,  $\pm 90$  degrees away from the runway, the panels would not be straight ahead of the pilots or within 25 degrees of straight ahead during final approach; pilots would not be substantially affected. In addition, according to another study by the FAA, *Technical Guidance for Evaluating Selected Solar Technologies on Airports*, although some types of solar energy collectors reflect light; solar PV panels are designed to absorb light; thus, solar panels are not expected to reflect much light that could be a source of glare. Regardless, the proposed solar PV panels would be coated with anti-glare material, and final designs would be reviewed by the Plumas County Airport Land Use Commission (as indicated in Mitigation Measure 1.1 below). Therefore, the solar panels would not cause glare resulting in visual discomfort or impairment of vision to motorists, surrounding residents, or to pilots. The proposed project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Potential impacts would be less than significant provided that the solar panels are coated with anti-glare material.

### **Mitigation**

MM 1.1. If installed, the proposed solar photovoltaic panels shall be coated with an anti-glare material. Final plans shall be removed by the Plumas County Airport Land Use Commission.

### **Documentation**

California Department of Transportation. 2016. California Scenic Highway Mapping System. Plumas County. [http://www.dot.ca.gov/hq/LandArch/16\\_livability/scenic\\_highways/](http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/). Accessed September 2016.

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<http://www.countyofplumas.com/DocumentCenter/Home/View/4500>. Accessed September 2016.

\_\_\_\_\_. 2016. Plumas County Airport Land Use Compatibility Plan for Gansner Airport at Quincy.

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Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**2. AGRICULTURAL AND FORESTRY RESOURCES.**

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

- |  |                          |                          |                                     |                                     |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d. Result in the loss of forest land or conversion of forest land to non-forest use?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

**Discussion**

**a.**

According to the Farmland Mapping and Monitoring Program maps, no data is available for Plumas County except in the Sierra Valley. The nearest mapped farmland, Farmland of Statewide Importance, is located approximately 34 miles southeast of the project site, east of the community of Beckwourth.

**b, e.**

The Plumas County General Plan designates a large portion of the project site, including the improved land disposal area and the existing emergency storage pond, as Agricultural Preserve. One of the pastures within the improved land disposal area is also located in a Combining Zone for Farming by the County. In addition, some nearby lands are subject to a Williamson Act contract although the lands are mapped as Non-Prime Agricultural Land. Aside from the emergency storage pond, pastures in and adjacent to the project site are used and would continue to be used for

commercial agricultural production as they are seasonally grazed by cattle. It is expected that treated effluent would continue to be available to irrigate these pastures so that grazing may continue. Although the existing emergency storage pond would be abandoned, it would not result in the conversion from agriculture to a non-agricultural use. The project would not result in the permanent conversion of Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use. Impacts would be less than significant.

**c, d.**

The proposed project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland or timberland zoned Timberland Production. The project would not result in the loss of forest land or conversion of forest land to non-forest use.

**Mitigation**

None necessary

**Documentation**

Plumas County. 2015. Plumas County Zoning.

<http://mangomap.com/maps/47662/Plumas-County-Zoning>. Accessed September 2016.

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Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
--	--------------------------------	--	------------------------------	-----------

**3. AIR QUALITY.** Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

- |   |                          |                          |                                     |                                     |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a. Conflict with or obstruct implementation of the applicable air quality plan?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d. Expose sensitive receptors to substantial pollutant concentrations?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e. Create objectionable odors affecting a substantial number of people?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

**Discussion**

**a-d.**

Both the Federal and State governments have developed standards for air pollutants of principal concern. Pollutants for which national ambient air quality standards have been developed are nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), sub 2.5-micron particulate matter (PM<sub>2.5</sub>), sub 10-micron particulate matter (PM<sub>10</sub>), sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), and lead (Pb). The State has adopted similar or more stringent criteria for these pollutants and has also adopted standards for hydrogen sulfide (H<sub>2</sub>S), vinyl chloride, and visibility reducing particles. These ambient air quality standards are intended to address regional air quality conditions, not project-specific emissions.

Plumas County is in compliance with the Federal Clean Air Act for all criteria pollutants (considered attainment or unclassified). With respect to the California Clean Air Act, Plumas County is considered non-attainment for PM<sub>10</sub>. The Northern Sierra Air Quality Management District (NSAQMD) evaluates new projects to ensure compliance with the District's land use guidelines. As depicted in Table 1, the NSAQMD has adopted daily emission thresholds that will be used in conjunction with the Planning Division's use of an air emissions modeling program. These thresholds were developed to evaluate construction and operational emissions.

**Table 1  
Thresholds of Significance for Criteria Pollutants of Concern (lbs/day)**

<b>Pollutants</b>	<b>Level A</b>	<b>Level B</b>	<b>Level C</b>
NO <sub>x</sub>	<24	24-136	>136
ROG	<24	24-136	>136
PM <sub>10</sub>	<79	79-136	>136

*Source: NSAQMD Guidelines for Assessing and Mitigating Air Quality Impacts of Land Use Projects, May 31, 2016.*

Implementation of the proposed project would result in short-term construction emissions as well as an increase in operational emissions. The CalEEMod air emissions modeling program is the accepted tool for estimating project emissions. The software provides results for NO<sub>x</sub>, PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, CO, reactive organic gases (ROG)/volatile organic compounds (VOC), and carbon dioxide (CO<sub>2</sub>). The remaining pollutants, consisting of lead, ozone, hydrogen sulfide, vinyl chloride, and visibility reducing pollutants, are evaluated on an individual basis. Although not directly

addressed as a pollutant of concern, ROG and VOC are of interest because they are precursors of ozone. Likewise, CO<sub>2</sub> is not addressed as a pollutant of concern, but is of interest because it is a common greenhouse gas (see Section III.C.7, “Greenhouse Gas Emissions”).

As shown in Table 2, with the exception of NO<sub>x</sub>, construction emissions would not exceed the Level “A” thresholds listed in Table 1. As shown in Tables 3 and 4, potential emissions from the treatment plant and mobile-sources (i.e., sludge hauling) would not exceed Level “A” thresholds. For projects that do not exceed Level “A” thresholds, implementation of standard mitigation measures as defined by NSAQMD, (e.g., preparation of a Dust Control Plan), would provide appropriate air quality controls during project construction. Regarding NO<sub>x</sub> emissions, adherence to the In-Use Off-Road Diesel Vehicle Regulation, adopted by the California Air Resources Control Board (CARB) in 2008, would sufficiently mitigate for NO<sub>x</sub> emissions resulting from project construction (Sam Longmire, Air Pollution Control Specialist, pers. comm.). The In-Use Off-Road Diesel Vehicle Regulation:

- imposes limits on idling;
- requires all vehicles be reported to CARB and subsequently labeled;
- restricts the adding of older vehicles into fleets starting on January 1, 2014; and
- requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies (VDECS) (i.e., exhaust retrofits).

With implementation of standard mitigation measures, and adherence to the In-Use Off-Road Diesel Vehicle Regulation, impacts to air quality resulting from project construction would be less than significant.

**Table 2  
Projected Construction Emissions (lbs/day)**

NO <sub>x</sub>	PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>2</sub>	CO	ROG/VOC	CO <sub>2</sub>
82.7	9.7	30.7	0.5	219.6	18.0	39,319.2

**Table 3  
Projected Treatment Plant Emissions (lbs/day)\***

NO <sub>x</sub>	PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>2</sub>	CO	ROG/VOC	CO <sub>2</sub>
—	—	—	—	—	—	6,561.08

\*Reflects construction emissions amortized over life of project (estimated at 20 years).

**Table 4  
Projected Mobile Source Emissions (Sludge Hauling Trips)**

	NO <sub>x</sub>	PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>2</sub>	CO	ROG/VOC	CO <sub>2</sub>
Daily Emissions (lbs/day)	3.26	0.07	0.08	—	0.92	0.16	6,088.77
Annual Emissions (tons)	0.54	0.01	0.01	—	0.15	0.027	82.47

Likewise, the proposed project would not result in significant impacts associated with lead, ozone, hydrogen sulfide, vinyl chloride, or visibility reducing pollutants, as discussed below.

- According to the U.S. Environmental Protection Agency (EPA), the majority of lead emissions produced nationally are associated with combustion of leaded aviation gasoline by piston-driven aircraft. Elevated levels of airborne lead at the local level are usually found near industrial operations that process materials containing lead, such as smelters. As these conditions are not applicable to the proposed project, the potential for lead emissions is less than significant.

- Ozone is formed primarily from photochemical reactions between two major classes of air pollutants: ROGs and nitrogen dioxide. ROGs are emitted from a variety of sources, including motor vehicles, chemical manufacturing facilities, refineries, factories, consumer and commercial products, and natural (biogenic) sources (mainly trees). Nitrogen dioxide emissions are primarily emitted from motor vehicles, power plants, and off-road equipment. Because project construction would generate relatively low amounts of both ROG and NO<sub>x</sub>, the potential for ozone production/emissions is less than significant.
- Hydrogen sulfide is formed during the decomposition of organic material in anaerobic environments. As it applies to this project, decomposing organic matter could include dead or dying vegetation related to land effluent disposal and/or the drying of waste sludge produced during treatment plant operations. At present, pasture lands to the south are flood irrigated in support of grazing activities. According to the engineer, irrigation levels would remain the same following project implementation. With no changes in irrigation levels, the potential for hydrogen sulfide associated with continued irrigation activities is less than significant.

Under current treatment conditions, waste sludge is dried during the summer months in an on-site settling pond, which is periodically drained to allow for sludge drying purposes. As proposed, treatment plant improvements would utilize a centrifuge or sludge blower dewatering process. The dewatering facility would be enclosed in a separate building to protect equipment and electrical/control facilities as well as minimize the potential for odors. As facility improvements would include a more efficient dewatering process compared to the current drying beds, and that the facility would be enclosed, the potential for hydrogen sulfide associated with sludge drying operations is less than significant.

- Vinyl chloride is used to manufacture polyvinyl chloride (PVC) plastic and other vinyl products, which accounts for approximately 98 percent of the vinyl chloride produced in the United States. Additionally, vinyl chloride is produced during the microbial breakdown of chlorinated solvents (e.g., engine cleaner, degreasing agent, adhesive solvents, paint removers, etc.). The potential for vinyl chloride exposure is primarily limited to areas in close proximity to PVC production facilities. Such facilities are absent from the Quincy area, and project implementation would not result in an increase of chlorinated solvents. Therefore, the potential for vinyl chloride emissions associated with the proposed project would be less than significant.
- Visibility reducing pollutants generally consist of sulfates, nitrates, organics, soot, fine soil dust, and coarse particulates. These pollutants contribute to the regional haze that impairs visibility, in addition to affecting public health. According to the California Regional Haze Management Plan, natural wildfires and biogenic emissions are the primary contributors to visibility reducing pollutants. For the proposed project, visibility reducing pollutants (e.g., PM<sub>2.5</sub> and PM<sub>10</sub>), would be generated only during construction activities. Because only relatively low amounts of particulates would be generated, potential impacts with respect to visibility reducing pollutants are less than significant.

**e.**

During construction, the proposed project may result in the release of diesel fumes, paint fumes, or other potentially objectionable odors. However, the WWTP is located in a semi-rural area with the nearest residence being over 500 feet from the majority of the proposed construction activities. One residence on Quincy Junction Road would be nearer the project site, approximately 218 feet away from the site; however, this residence is near the southern end of the potential access road, and therefore, would not be subjected to a significant amount of diesel fumes, paint fumes, or other potentially objectionable odors. Given this distance separation, potentially objectionable odors resulting from construction of the treatment plant improvements (e.g., paint fumes and diesel exhaust) would not be significant.

With regard to project operation, the new equalization basins could provide some potential for odor generation. However, these basins would rarely be inundated with influent, only during times of peak flows, and when inundated, continuous aeration would minimize the potential for odors. Sludge would be dried and processed using an enclosed centrifuge or sludge blower dewatering facility. This method of drying poses less risk of odor to surrounding residents than the existing process of drying sludge within on-site polishing ponds, which are not enclosed. Once the sludge is dry, the potential for odors is minimal; in any case, the dried sludge would be hauled from the treatment plant to the landfill in a covered dumpster, which would minimize the odor release. Potentially objectionable odors resulting from facility operation and sludge hauling would be less than significant.



## Mitigation

Because the proposed project would be constructed and operated in accordance with existing requirements of the NSAQMD and CARB, no mitigation would be necessary.

## Documentation

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Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**4. BIOLOGICAL RESOURCES.** Would the project:

- |  |                          |                                     |                                     |                                     |
|--|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**Discussion**

**a.**

The following evaluation of potential impacts on special-status species is based on the findings of a review of California Natural Diversity Data Base (CNDDDB) and U.S. Fish and Wildlife Service (USFWS) records, as well as botanical and wildlife surveys completed by ENPLAN. Evaluation of potential effects on federally listed, proposed, or candidate species entailed review of plant and animal species under jurisdiction of the USFWS and anadromous fish species under the jurisdiction of the National Marine Fisheries Service (NMFS). A USFWS Official Species List for the project site was generated for species of concern to the USFWS. NMFS was not consulted because anadromous fish have no potential to occur in or adjacent to the project site due to the construction of Oroville Dam approximately 45 miles downriver from the project site, which is a barrier to anadromous fish in the Feather River.

*Special-Status Plant Species*

Review of the USFWS species list for the project site (Appendix A) identified no federally listed or candidate plant species as potentially being affected by the proposed project. The project site does not contain designated critical habitat for federally listed plant species. Review of CNDDDB records showed that one special-status plant species, Webber's ivesia, has been previously reported in the project vicinity and the occurrence has been broadly mapped to include a portion of the project site. Nine other special-status plant species have been reported within a five-mile radius of the project site: California twisted spikerush, Constance's rock-cress, Follett's monardella, northern coralroot, pointed broomsedge, Quincy lupine, sticky pyrrocoma, tall alpine-aster, and watershield.

To determine the presence/absence of special-status plant species, ENPLAN conducted a botanical survey of the project site on June 15 and 16, 2016. Most of the special-status plant species potentially occurring on the project site would have been evident at the time the fieldwork was conducted. The potential presence of species not identifiable during the field study was readily determined on the basis of observed habitat characteristics. The potential for special-status plant species to occur on the project site is evaluated in Appendix A. As shown in Appendix A, the project site has potentially suitable habitat for California twisted spikerush, watershield, tall alpine-aster, and pointed broomsedge.

None of these special-status species was observed or is expected to be present on the site. However, during the botanical survey, a population of Castlegar hawthorne was identified along Spanish Creek, adjacent to the primary construction access road. This plant is assigned a California Rare Plant Rank of 3 (Plants About Which We Need More Information – A Watch List); it is currently being considered for Rank 2 (Plants Rare, Threatened, or Endangered in California, but More Common Elsewhere). Rank 2 plants generally require consideration during CEQA review. The hawthorne was observed just outside of the fenced project site and would not be directly affected by project implementation. Indirect impacts would be limited to increased dust during project construction, which would have no long-term effects on the plants. For these reasons, and because the hawthorne is not state or federally listed, impacts are considered less than significant and mitigation is not required.

#### *Special-Status Wildlife Species*

Review of the USFWS Official Species List for the project site (Appendix A) identified three federally listed or candidate wildlife species as potentially being affected by the proposed project: California red-legged frog, Sierra Nevada yellow-legged frog, and Delta smelt. There is no designated critical habitat within or adjacent to the project site.

Review of CNDDDB records showed that one special-status animal species, American badger, has been previously reported in the project vicinity and the occurrence has been broadly mapped to include a portion of the project site. Eight other special-status wildlife species have been reported within a five-mile radius of the project area: bald eagle, bank swallow, greater sandhill crane, northern goshawk, pallid bat, Sierra Nevada red fox, Sierra Nevada yellow-legged frog, and Townsend's big-eared bat. Local records show that three of the above species have been observed in or adjacent to the WWTP site: bank swallow, greater sandhill crane, and northern goshawk. Although not reported in the CNDDDB or local records, the project site is within the known range of western pond turtle, a State Species of Special Concern.

To determine the presence/absence of special-status animal species, ENPLAN conducted a wildlife survey of the project site on June 21, 2016. Most of the special-status animal species potentially occurring on the project site would have been evident at the time the fieldwork was conducted. The potential presence of species not identifiable during the field study was readily determined on the basis of observed habitat characteristics. The potential for special-status animal species to utilize the project site is evaluated in Appendix A. Western pond turtle, a State Species of Special Concern, was observed in the project site during the wildlife survey. The project site has potentially suitable habitat for five other special-status species, pallid bat, Townsend's big-eared bat, bank swallow, greater sandhill crane, and northern goshawk. These species are described in greater detail below.

#### Western Pond Turtle

Approximately 25 western pond turtles and unidentifiable turtles were observed in the existing irrigation pond during the wildlife survey. Several unidentifiable turtles were also observed diving for cover in Clear Stream, and are assumed to be western pond turtles. No western pond turtles were observed in the polishing ponds and none would be expected to occur due to the low water quality of the primarily effluent and the depth of the water. No western pond turtles were observed in the emergency storage pond, which is likely due to the lack of water—the majority of the area was dry except a small channelized section along the southern perimeter that intermittently conveys water from the irrigation pond to the Spanish Creek outfall. However, during periods when more water is present in the emergency storage pond, it is possible that turtles could also be present.

Project implementation would result in dewatering and fill of the four polishing ponds. Conversion of the polishing ponds is not expected to affect western pond turtles because the ponds are not considered potentially suitable turtle habitat. Proposed improvements that could affect potential turtle habitat would be limited to the existing irrigation pond, which may be dewatered, excavated, lined, and converted to two effluent storage basins. If constructed, the

effluent storage basins would not contain water on a daily basis, and would only be inundated during irrigation periods or instances when effluent limitations associated with discharging to Spanish Creek cannot be met. However, this potential permanent loss of a pond is not likely to significantly affect available habitat for turtles given that potentially suitable habitat exists nearby, including Clear Stream where turtles have also been observed. Clear Stream currently receives treated effluent during the irrigation season (effluent is utilized for irrigation of grazing lands) but no supplemental flow at other times of year. This use pattern is expected to continue indefinitely. However, even if irrigation were discontinued, Clear Stream would continue to receive water from storm runoff and other sources, and could maintain some habitat value for western pond turtles.

Potential direct impacts on western pond turtles could occur if present during in-water work periods at the irrigation pond. If present, western pond turtles could be injured/killed as a result of being crushed by construction equipment or by placement of construction-related materials into the in-water work area. Potential indirect impacts include habitat degradation if sediment-laden water or pollutants are discharged into aquatic habitats. As called for in Mitigation Measure 4.1, if improvements are constructed at the irrigation pond, potential direct impacts on western pond turtles will be avoided/minimized by dewatering the existing irrigation pond and allowing the pond basin to dry for at least one week before beginning work, which will allow time for any turtles that may be present to leave the irrigation pond on their own. Potential indirect impacts on western pond turtles would be minimized through use of Best Management Practices (BMPs) for erosion control and spill prevention (see Section III.C.9, "Hydrology and Water Quality").

#### Pallid Bat and Townsend's Big-Eared Bat

Although no pallid bats or Townsends big-eared bats were observed in the project site during the wildlife survey, buildings on the project site have a moderate potential to be utilized for roosting by pallid bats and Townsend's big-eared bats. However, because no buildings would be removed, no mitigation measures are warranted.

#### Bank Swallow, Greater Sandhill Crane, and Northern Goshawk

Neither bank swallow, greater sandhill crane, nor northern goshawk were observed in the project site during the wildlife survey. Although these species have been previously observed in the immediate vicinity, no potentially suitable nesting habitat occurs in the project site. Although potentially suitable foraging habitat is present, foraging habitat would not be affected by project implementation. Thus, none of these species would be adversely affected.

#### **b, c.**

Sensitive natural communities present on the project site are limited to open water and wetland habitats, which are described below. In addition, invasive weeds are discussed due to their threat to natural communities.

#### Wetlands

The project site supports ±52 acres of irrigated pasture wetlands. Additionally, a ±0.2-acre constructed ditch is mapped east of the treatment plant. Generally speaking, wetlands south of Clear Stream support grasses and forbs between 6 and 36 inches tall. These wetlands are utilized for cattle grazing, serve as foraging habitat for certain wildlife species, and provide habitat for ground-nesting birds. Wetlands along the western site boundary north of Clear Stream are not currently utilized as grazing lands. These wetlands support grasses and forbs between two and six feet tall; providing bedding areas for deer, and providing foraging habitat and nesting habitat for a wider range of species. Irrigation flows, seepage from Clear Stream, and rainfall are the primary source of water for on-site wetlands. The constructed ditch conveys flows from Clear Stream to irrigate fields to the south in support of grazing activities. The ditch exhibits a distinct shelf and does not support hydric vegetation along its bottom.

If constructed, improvements to the QCSD-owned pastures would directly impact approximately 2.22 acres of wetlands and up to ±0.2 acres of constructed ditch; permanent fill of these features would occur as a result of placement of berms, installation of pipelines and solar panels, and other infrastructure. Much of the remaining wetlands could be temporarily disturbed during project construction. However, grading and effluent disposal would result in conversion of about four acres of upland to irrigated pasture wetland. Because the project would result in an overall increase in wetlands, mitigation for fill activities resulting from the proposed project is unwarranted.

#### Open Water

Although not subject to state or federal jurisdiction as wetlands or "Other Waters," the polishing ponds and the irrigation pond are considered open-water habitat. The polishing ponds have sparse vegetation along their shorelines

and have limited values for wildlife. The irrigation pond features more vegetation along the shoreline that provides limited cover for waterfowl and other wildlife; several species of waterfowl and numerous western pond turtles were observed in the irrigation pond during the field survey conducted by ENPLAN. As described previously, the polishing ponds would be dewatered, excavated, and replaced with the new treatment facility. The existing irrigation pond may be dewatered, excavated, and lined if converted to effluent storage basins. As a result, because the potential effluent storage basins would not contain water on daily basis, and would not be allowed to grow vegetation, its use as habitat for waterfowl and other wildlife would be limited. However, because other suitable habitat for waterfowl and other wildlife exists nearby, project implementation would not result in significant open-water habitat impacts.

#### Invasive Weeds

Invasive weeds pose threats to natural communities because invasive species displace and compete with native species. Noxious weeds can adversely affect agricultural and forest economies, as well as wildlife and recreation resources. B-rated weeds<sup>4</sup> that were observed on the site during the botanical field survey included broadleaved pepperweed (*Lepidium latifolium*), jointed goat grass (*Aegilops cylindrica*), Canada thistle (*Cirsium arvense*), and quackgrass (*Elymus repens*). C-rated weeds<sup>5</sup> present on the site include: St. John's wort (*Hypericum perforatum*), yellow star-thistle (*Centaurea solstitialis*), and bindweed (*Convolvulus arvensis*). One A-rated weed<sup>6</sup>, sulphur cinquefoil (*Potentilla recta*), was also observed. Although the proposed project does not include revegetation or landscaping that would use invasive plant species, construction vehicles and equipment have the potential to introduce/spread invasive plant species on the project site and offsite. Implementation of Mitigation Measure 4.2 would minimize the potential for introduction or spread of noxious weed species.

#### **d.**

Project implementation would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, nor would it impede the use of native wildlife nursery sites. Numerous native resident fish and wildlife species inhabit Plumas County. Most notable among the migratory species are black-tailed deer and various species of migratory birds. As described above, anadromous salmonids would not be directly or indirectly affected by project implementation because Oroville Dam, over 45 miles downstream from the project site, is a barrier to anadromous fish in the Feather River. The black-tailed deer is not designated as a special-status species, but is of concern to the California Department of Fish and Wildlife (CDFW). Review of the Plumas County General Plan found that portions of the project site are located within areas designated as important habitat for deer and other mammals; however, project implementation would have no significant impact on critical deer wintering areas.

The project site is located within the Pacific Flyway, and it is possible that migratory birds could nest on the site. American crow, American robin, black phoebe, Canada goose, cliff swallow, common raven, double-crested cormorant, downy woodpecker, killdeer, black-billed magpie, mallard, red-tailed hawk, red-winged blackbird, tree swallow, turkey vulture, and wood duck—all migratory birds—were observed on the project site. Several unoccupied nests were observed in the pasture and several active cliff swallow nests were observed on buildings at the wastewater treatment facility.

The federal Migratory Bird Treaty Act (MBTA) and related international treaties and domestic laws provide protection for migratory birds. The MBTA established that all migratory birds and their parts (including eggs, nests, and feathers) are fully protected. The MBTA is the domestic law that affirms, or implements, the United States' commitment to four international conventions (with Canada, Japan, Mexico, and Russia) for the protection of a shared migratory bird

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<sup>4</sup> The California Department of Food and Agricultural (CDFA) defines a B-rated weed as being a pest that, if present in California, is of limited distribution. At the discretion of the county agricultural commissioner, B-rated pests are "subject to eradication, containment, suppression, control, or other holding action."

<sup>5</sup> The CDFA defines a C-rated weed as being a pest that, if present in California, is usually widespread. If found, C-rated pests are "subject to regulations designed to retard spread or to suppress at the discretion of the county agricultural commissioner. There is no state enforced action other than providing for pest cleanliness."

<sup>6</sup> The CDFA defines an A-rated weed as being a pest that is either not known to be established in California or is present in a limited distribution that allows for the possibility of eradication or successful containment. If found, "A-rated pests are subject to State (or commissioner when acting as a state agent) enforced action involving eradication, quarantine regulation, containment, rejection, or other holding action."

resource. Each of the conventions protects selected species of birds that are common to each country (i.e., they occur in each country at some point during their annual life cycle). The USFWS is the federal agency primarily responsible for protection of migratory birds.

Vegetation clearing and construction activities associated with the proposed improvements could adversely affect nesting birds. Ground-nesting birds such as Canada goose and killdeer could potentially occupy the work area at the time construction is initiated, and other birds could be nesting in nearby woody vegetation and/or on buildings. As called for in Mitigation Measure 4.3, to comply with the requirements of the MBTA, vegetation removal and construction activities should occur outside of the nesting season, if possible. In the local area, most birds nest between March 1 and August 31. Accordingly, the potential for adversely affecting nesting birds can be greatly minimized by removing vegetation and conducting construction activities either before March 1 or after August 31. If this is not possible, a nesting survey would be conducted within one week prior to removal of vegetation and/or the start of construction. If active nests are found on the project site, work would need to be postponed in the vicinity of the nests until after the young have fledged. Further, to prevent nest abandonment and mortality of chicks and eggs, vegetation removal and construction activities would not occur within 500 feet of an active nest unless a smaller buffer zone is authorized by CDFW and USFWS. If required by the agencies, a qualified biologist could monitor active nest(s) during construction for signs of disturbance to the nesting birds.

Compliance with the requirements of the MBTA will ensure that nesting migratory birds are not adversely affected by the proposed project.

**e.**

The Conservation Element of the Plumas County General Plan includes policies to conserve and protect the County's biological resources. Development projects that could potentially affect special-status species or sensitive natural communities are required to conduct appropriate biological studies and include measures to avoid or minimize impacts. Inclusion of Mitigation Measures 4.1, 4.2 and 4.3 ensures impacts will be less than significant. A review of the Plumas County Code confirmed that the proposed project does not conflict with local policies and ordinances protecting biological resources.

**f.**

As stated in the Plumas County General Plan, there are no adopted Habitat Conservation Plans or Natural Community Conservation Plans currently permitted in the County. In addition, there are no other approved local, regional, or state habitat conservation plans applicable to the project site.

### **Mitigation**

MM 4.1. If improvements are constructed at the existing irrigation pond where the pond is dewatered, excavated, lined, and converted to effluent storage basins, the potential for direct impacts on western pond turtles shall be avoided by dewatering the irrigation pond and allowing the pond basin to dry for at least one week before beginning work, which will allow time for any turtles that may be present to leave the irrigation pond on their own.

MM 4.2. To avoid the introduction and spread of noxious weeds, the Quincy Community Services District shall implement the following measures:

- Educate construction supervisors and managers on weed identification and the importance of controlling and preventing the spread of noxious weed infestations.
- Clean construction equipment immediately prior to transporting off the project site. An Agricultural Commissioner staff person shall inspect the equipment before it leaves the site.
- Seed all disturbed areas outside of the improved land disposal area with certified weed-free native mixes. Mulch with certified weed-free mulch.

MM 4.3. To ensure that active nests of migratory birds are not disturbed, vegetation removal and construction activities shall occur between August 31 and March 1, if feasible. If vegetation removal or construction must occur during the nesting season, a nesting survey shall be conducted by a qualified biologist to identify active nests in and adjacent to the work area. The survey shall be conducted no more than one week prior to the initiation of vegetation removal or construction. If nesting birds are found, the nest sites shall not be disturbed until after the young have

fledged. Further, to prevent nest abandonment and mortality of chicks and eggs, no vegetation removal or construction activities shall occur within 500 feet of an active nest, unless a smaller buffer zone is authorized by the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service (the size of the construction buffer zone may vary depending on the species of nesting birds present).

### Documentation

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Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**5. CULTURAL RESOURCES. Would the project:**

- |   |                          |                                     |                                     |                          |
|---|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| a. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5?    | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?                       | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Disturb any human remains, including those interred outside of formal cemeteries?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |

**Discussion**

**a, b, d.**

A cultural resources study, including a records search, Native American consultation, and field survey, was completed for the project by ENPLAN. No California Native American Tribe has filed a formal request with the QCSD asking to be consulted in accordance with California Assembly Bill 52.

Consultation with the Native American Heritage Commission and local Native American community did not reveal any known sacred sites or cultural resources in the project area. Communication with Native American individuals did indicate that the project area may be sensitive for cultural resources and that there is potential for an ethnographic village to be located in the area. The records search included review of data filed with the California Historical Resources Information System, Northeast Information Center, at California State University, Chico, as well as other sources. The records search indicated that five historic sites and one prehistoric site have been previously recorded within one-half-mile of the project area. The prehistoric site consists of possible Native American house pits. The historic sites consist of a cemetery, refuse scatter, old railroad grade, prospecting pit, and remains of a small diversion dam. Records indicate that ten cultural resource surveys have been previously conducted within a half-mile of the project site; five of the surveys covered various portions of the project site.

ENPLAN conducted a pedestrian survey of the project site on July 18 and 19, 2016. The survey did not result in the identification of any cultural resources.

Given the above findings, project implementation would not cause a substantial adverse change in the significance of a known historical resource. However, the project area is considered to have a moderate to high sensitivity for the presence of buried prehistoric deposits, and it is possible that undocumented buried cultural remains could be encountered during subsurface excavations. Much of the project area has been previously surveyed, but all previous surveys reported low visibility and pre-date Jack Meyer’s (2013) Archaeological Site Location Model, which enumerates the likelihood of buried cultural deposits based on soil types. The majority of the project area contains Greenhorn loam soils, which dates to the Recent Holocene (1,000 to 150 B.P.). According to Meyers’ (2013) model, this soil type has Very High potential for buried cultural resources. Given that this soil type is an alluvial deposit and the project area is in the floodplain, it is unlikely that cultural resources would be found on the surface. It is much more likely that cultural resources may be found buried below the surface and would not be identifiable from survey observations alone.

Moreover, partial funding is being provided by the USDA Rural Development and the State Revolving Fund; therefore, the project is subject to federal requirements with respect to cultural resources. In accordance with these requirements, specific measures for avoidance and/or minimization of impacts to buried cultural resources would be developed through consultation with the lead federal agency and the State Historic Preservation Officer (SHPO), and



interested Native Americans. It is anticipated that the federal agencies may require additional work to complete the federal environmental review process. The additional work would also help meet CEQA requirements for the protection of cultural resources. At a minimum, the following work is anticipated:

- 1) A Late Discovery Plan will be developed to define the methodology, roles, and responsibilities should a potentially eligible unanticipated resource (historic or prehistoric) be identified. The Late Discovery Plan would be prepared through consultation with QCSD, the lead federal agency, Native Americans, and SHPO, and must be approved prior to the start of construction.
- 2) A field visit will be arranged with interested Native American individuals, QCSD, and the lead federal agency to discuss the potential for unknown buried cultural resources in the project area. Information from this meeting will be incorporated into the development of subsequent mitigation measures.

Subsequent mitigation measures will be determined in consultation with the lead federal agency and SHPO and could include any of the measures noted below. Final determinations regarding mitigation should take into account the final project plans, project phasing, and any new information that may become available (such as geotechnical documentation for the site).

- 1) Have a Secretary of the Interior qualified archaeologist conduct a subsurface investigation to identify the potential risk associated with proposed project prior to the start of construction, as would be described in an Extended Phase I Testing Program. This would likely entail the excavation of trenches through the use of construction equipment to evaluate the potential for subsurface resources to occur within the pastures where the likelihood of intact deposits is higher and where the majority of ground disturbing work is proposed. A Native American monitor would be present during the investigative testing phase.
  - a. If no resources potentially eligible for listing in the National Register of Historic Resources (NRHP) or California Register of Historic Resources (CRHR) are observed during the investigative testing program, project construction would commence as proposed.
  - b. If potentially eligible resources are observed during the investigative testing program, follow-up consultation would occur to determine if avoiding the resource is feasible during project construction.
    - i. If a potentially eligible resource is encountered during the investigative testing phase, and avoidance is determined to be infeasible, a Data Recovery Plan would be developed in consultation with QCSD, the lead federal agency, SHPO, and interested Native Americans. The plan would identify the type and extent of excavation needed within the project footprint and the scope of evaluation (obsidian hydration, carbon dating, stratigraphic analysis, etc.) necessary with respect to artifacts encountered. Implementation of the Data Recovery Plan would serve as mitigation for impacts on the cultural resources.
- 2) If, during construction activities, a potentially eligible resource is encountered, it would be evaluated/managed in accordance with the Late Discovery Plan. If, through the Late Discovery Plan evaluation, the resource is determined eligible for listing, and avoidance is infeasible, a Data Recovery Plan would be developed and implemented.
- 3) A Native American monitor and/or archaeological monitor would be present during initial ground-disturbing activities for all work undertaken in the improved land disposal area for the purposes of identifying any unidentified buried cultural deposits.

Implementation of Mitigation Measures 5.1, 5.2, and 5.3, below would ensure that potential impacts associated with the proposed project would be less than significant.

### **Mitigation**

MM 5.1. The Quincy Community Service District shall consult with interested Native Americans and the lead federal agency regarding the potential presence and need for protection of buried cultural resources. Depending on the results of the consultation, an Extended Phase I Testing Program and/or archaeological monitoring may be required. At a minimum, a Late Discovery Plan shall be prepared in consultation with the federal lead agency, SHPO, and interested Native Americans, and must be approved by the agencies prior to project construction.

The Late Discovery Plan shall define the methodology, roles, and responsibilities should a potentially eligible unanticipated resource (historic or prehistoric) be identified. The Plan shall require that if such a resource is encountered, all ground-disturbing activities shall be halted within a 50-foot radius of the discovery until a qualified archaeologist examines the resource and makes a determination as to its eligibility. A Native American monitoring component may be included in the Late Discovery Plan.

MM 5.2. A Data Recovery Plan shall be prepared and implemented if a National Register of Historic Resources (NRHP) or California Register of Historic Resources (CRHR) eligible resource is observed, and avoidance is determined to be infeasible. The Data Recovery Plan shall be developed in consultation with Quincy Community Service District, the lead federal agency, SHPO, and interested Native Americans. The Data Recovery Plan shall identify the type and extent of excavation needed within the project footprint and the scope of evaluation (obsidian hydration, carbon dating, stratigraphic analysis, etc.) necessary with respect to artifacts encountered. Implementation of the Data Recovery Plan would serve as mitigation for impacts on the cultural resources.

MM 5.3. If any human remains are encountered during any phase of construction, all earth-disturbing work shall stop within 50 feet of the find. The county coroner shall be contacted to determine whether investigation of the cause of death is required as well as to determine whether the remains may be Native American in origin. Should Native American remains be discovered, the county coroner must contact the Native American Heritage Commission (NAHC). The NAHC will then determine those persons it believes to be most likely descended from the deceased Native American(s). Together with representatives of the people of most likely descent, a qualified archaeologist shall make an assessment of the discovery and recommend/implement mitigation measures as necessary.

#### **Documentation**

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- State of California, Department of Conservation, California Geological Survey. 2010 Geologic Map of California. <http://www.quake.ca.gov/gmaps/GMC/stategeologicmap.html>. Accessed September 2016.
- Programmatic Agreement, Among the Rural Economic and Community Development Services, the California State Historic Preservation Officer, and the Advisory Council on Historic Preservation regarding the Implementation of the Rural Economic and Community Development Services' Programs in California. September 2006.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**6. GEOLOGY AND SOILS. Would the project:**

- |  |   |   |   |  |
|--|---|---|---|--|
| <p>a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</p> <p>1) 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.</p> <p>2) Strong seismic ground-shaking?</p> <p>3) Seismic-related ground failure, including liquefaction?</p> <p>4) Landslides?</p> | <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> | <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> | <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input type="checkbox"/></p> | <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> |
| <p>b. Result in substantial soil erosion or the loss of topsoil?</p>   | <p><input type="checkbox"/></p>   | <p><input type="checkbox"/></p>   | <p><input checked="" type="checkbox"/></p>  | <p><input type="checkbox"/></p>  |
| <p>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?</p>  | <p><input type="checkbox"/></p>   | <p><input type="checkbox"/></p>   | <p><input checked="" type="checkbox"/></p>  | <p><input type="checkbox"/></p>  |
| <p>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?</p>  | <p><input type="checkbox"/></p>   | <p><input type="checkbox"/></p>   | <p><input checked="" type="checkbox"/></p>  | <p><input type="checkbox"/></p>  |
| <p>e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?</p>  | <p><input type="checkbox"/></p>   | <p><input type="checkbox"/></p>   | <p><input type="checkbox"/></p>   | <p><input checked="" type="checkbox"/></p>   |

**Discussion**

**a.** The project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

- 1) Rupture of a known earthquake fault:

According to the Alquist-Priolo Earthquake Fault Zoning Map for Plumas County, there are no Alquist-Priolo Special Study Zones in the project vicinity. The nearest Alquist-Priolo Special Study Zones, which identify fault areas considered to be of greatest risk in the state, occur east of Plumas County in Lassen County. Review of the U.S. Geological Survey’s earthquake fault map shows that the nearest earthquake fault is a north-south trending fault running through the town of Doyle, approximately 45 miles east of the project site.

- 2), 3) Strong seismic ground shaking or seismic-related ground failure, including liquefaction:

According to the Plumas County General Plan, seismic hazard mapping indicates that the County has a very low seismic hazard potential. While there are several faults within and near the County, the risks associated with earthquakes, such as strong seismic ground-shaking or surface fault rupture are considered low. Regardless, according to Chapter 1. Building Code, Section 8-1.01, “Adoption of the California Building Standards Code,” of Plumas County’s Code of Ordinances, Plumas County has adopted the current California Building Standards

Code, which establishes building requirements for all new structures. Compliance with Building Standards Code seismic standards would reduce the potential impact to less than significant.

Liquefaction results from an applied stress on the soil, such as earthquake shaking or other sudden change in stress condition, and is primarily associated with saturated, cohesionless soil layers located close to the ground surface. During liquefaction, soils lose strength and ground failure may occur. This phenomenon is most likely to occur in alluvial (geologically recent, unconsolidated sediments) and stream channel deposits, especially when the groundwater table is high. According to the Plumas County General Plan, liquefaction potential predominantly exists in meadows and low-lying areas composed of loose-medium-dense sandy soils, which may include the project site. However, compliance with the Building Standards Code would minimize any safety-related risks related to liquefaction. Further, the project site is not located near any known active seismic sources. The potential risks associated with liquefaction is low.

Based on the information provided above, the potential for adverse effects resulting from seismic ground shaking, or seismic-related ground failure, including liquefaction, is less than significant.

The susceptibility of a given area to landslides depends on many variables such as slope steepness, slope material and its structural and physical properties, water content, vegetation, earthquake ground motions, and erosion. The Plumas County General Plan has mapped areas susceptible to landslides and other geological hazards. The project site is not located on soils that may be prone to landslides. The nearest susceptible landslide area is located approximately one mile northeast of the project site. Potential effects from landslides on the project site or in the project vicinity are expected to be less than significant.

**b.**

Soils within the project site are mapped as Greenhorn loam, 0 to 1 percent slopes, for most of the project site, and Keddie loam, 0 to 2 percent slopes, for the potential construction access road. Project soil types are summarized in Table 5.

**Table 5  
Soil Type and Characteristics**

Soil Name	Soil Type	Slope (%)	Erosion Potential	Permeability	Drainage	Runoff Rate
Greenhorn Loam	Coarse loam	0-1	Moderate	Moderate	Poorly Drained	Slow
Keddie Loam	Fine loam	0-2	Moderate	Moderate	Poorly Drained	Moderately Slow

Sources: U.S. Department of Agriculture, Natural Resources Conservation Service, 2016; U.S. Department of Agriculture, Soil Conservation Service et al., 1983.

BMPs for erosion and sediment control would be implemented during project construction, as required by the Construction General Permit Order issued by the State Water Resources Control Board (SWRCB); the order requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) for all projects that disturb one or more acres of soil. Measures that may be implemented to minimize erosion include limiting construction to the dry season; use of straw wattles, silt fences, and/or gravel berms to prevent sediments from discharging off-site; and revegetating temporarily disturbed sites upon completion of construction. Because BMPs for erosion and sediment control would be implemented in accordance with existing requirements, the potential for soil erosion and loss of top soil would be less than significant.

**c.**

The potential hazards associated with liquefaction and landslides are addressed in impacts (a)3 and (a)4 above. In regard to the potential for lateral spreading, subsidence, or collapse, according to the Natural Resources Conservation Service (NRCS), soils on the project site have the potential to be unstable, and are likely limited in regards to shallow excavations and construction of small commercial buildings. Excavation would be involved as part of the proposed project. However, the California Building Standards Code provides minimum standards for design and construction. In addition, the California Department of Industrial Relations, Division of Occupational Safety and Health (Cal-OSHA), has developed and enforces numerous workplace safety regulations and requirements within California. Because both the design and construction of project-related facilities in unstable soils is required by law to comply with Cal-OSHA regulations and California Building Standards Code, which were developed to reduce risks to life and property to the maximum extent practical, this impact would be less than significant.

**d.**

Expansive soils contain high levels of clay and present hazards for development since they expand and shrink depending on water content. NRCS data shows that soils in the project site have some potential for soil expansion/contraction, but that any such limitations can be overcome or minimized through proper planning, design, and/or construction. Compliance with the California Building Standards Code would ensure that the project is constructed in a suitable location and specific safety standards are met. No substantial risks to life or property are anticipated.

**e.**

The proposed project is limited to improvements to wastewater treatment and effluent disposal facilities, as well as solar PV panels. As such, the project would not require the use of septic tanks or alternative wastewater disposal systems.

**Mitigation**

None necessary

**Documentation**

- State of California, Department of Conservation. 2016. "California Geological Survey—Alquist-Priolo Earthquake Fault Zoning Maps." [www.quake.ca.gov/gmaps/ap/ap\\_maps.htm](http://www.quake.ca.gov/gmaps/ap/ap_maps.htm). Accessed October 2016.
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- U.S. Department of Agriculture, Soil Series Classification. 2016. Official Soil Series Descriptions. <https://soilseries.sc.egov.usda.gov/>. Accessed October 2016.
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- State of California, Department of Conservation. 2016. CGS Information Warehouse. <http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=regulatorymaps>. Accessed October 2016.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**7. GREENHOUSE GAS EMISSIONS. Would the project:**

- a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

**Discussion**

**a.**

Improvements to existing WWTP facilities would result in short-term construction emissions as well as long-term operational emissions, including greenhouse gas emissions. The principal greenhouse gases of concern for a project of this nature are carbon dioxide (CO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), and methane (CH<sub>4</sub>). All greenhouse gases are assigned a global warming potential (GWP). This value is used to compare the abilities of different greenhouse gases to trap heat in the atmosphere. GWPs are based on the heat-absorbing ability of each gas relative to that of carbon dioxide (assigned a value of 1), as well as the decay rate of each gas (the amount removed from the atmosphere over a given number of years). GWPs can also be used to define the impact greenhouse gases will have on global climate change over different time periods. Assigning a GWP allows policy makers to compare impacts of emissions and reductions of different gases on an equal basis, termed “CO<sub>2</sub> equivalents” (CO<sub>2</sub>e). As can be seen from Table 6, NO<sub>x</sub> is 298 times more potent than CO<sub>2</sub> in terms of global warming potential, while CH<sub>4</sub> is 25 times more potent than CO<sub>2</sub>.

NSAQMD has not adopted thresholds of significance for greenhouse gases. According to NSAQMD staff, the District’s greenhouse gas policy is to quantify, minimize, and mitigate greenhouse gas emissions, as feasible. According to the results of the CalEEMod analysis, peak emissions generated during project construction would be 83 lbs/day of NO<sub>x</sub> and 39,319 lbs/day of CO<sub>2</sub>; minor amounts of CH<sub>4</sub> would also be present in vehicle emissions. To determine the project’s overall impact on greenhouse gas levels, construction emissions were amortized over 20 years (the planning timeframe for the proposed project) and added to the projected annual operational emissions.

Long-term operational emissions of the proposed project would be comprised of emissions generated by the activated sludge treatment system as well as those generated during the transport of sludge to a landfill located in Livermore, CA (combustion of diesel fuel). According to the project engineer, sludge hauling trips would occur up to once every four days. Projected greenhouse gas emissions are shown in Table 6.

Table 7 shows the total annual CO<sub>2</sub> equivalents (CO<sub>2</sub>e) for existing conditions and the proposed improvements. The new treatment process is needed to comply with stricter water quality standards mandated by the State, which would result in an increase in greenhouse gases. Based on the information provided in Table 7, increased greenhouse gas emissions resulting from project construction, treatment plant operations, and sludge disposal would be approximately 2,640 metric tons per year. According to the project engineer, based on the selected treatment plant improvements, greenhouse gas emissions have been reduced to the greatest extent practicable. As such, greenhouse gas emissions resulting from the proposed project would be less than significant.

**Table 6  
Projected Annual Greenhouse Gas Emissions<sup>1,2</sup>**

	<b>NO<sub>x</sub></b>	<b>CH<sub>4</sub></b>	<b>CO<sub>2</sub></b>
<b>Metric Tons/Year</b>	1.39	101.67	1,167.50
<b>GWP<sup>3</sup></b>	298	25	1
<b>CO<sub>2</sub>e/Year</b>	414.22	2,541.75	1,167.50

<sup>1</sup> Includes haul truck emissions inside and outside of the Mountain Counties Air Basin

<sup>2</sup> Operational emissions provided by project engineer; construction emissions estimated using CalEEMod

<sup>3</sup> Global Warming Potentials are presented by the U.S.EPA in the IPCC Fourth Assessment Report, 2007

**Table 7**  
**Projected Increase in Greenhouse Gas Emissions<sup>1,2</sup>**

	<b>Annual CO<sub>2</sub>e Emissions</b> (metric tons/year)
<b>Existing Condition</b>	1,483
<b>Proposed Project</b>	4,123
<b>Projected Increase</b>	2,640

<sup>1</sup> Includes haul truck emissions inside and outside of the Mountain Counties Air Basin

<sup>2</sup> Operational emissions provided by project engineer; construction emissions estimated using CalEEMod

**b.**

The project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

**Mitigation**

None necessary

**Documentation**

Environmental Protection Agency. 2005. Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel. <http://nepis.epa.gov/Exe/ZyPDF.cgi/P1001YTF.PDF?Dockey=P1001YTF.PDF>. Accessed September 2015.

\_\_\_\_\_. 2008. Average In-Use Emissions from Heavy-Duty Trucks. <http://www.epa.gov/otaq/consumer/420f08027.pdf>. Accessed September 2015.

Sam Longmire, Air Pollution Control Specialist III, Northern Sierra Air Pollution Control District, personal communication, October 2016.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**8. HAZARDS AND HAZARDOUS MATERIALS. Would the project:**

- |  |                          |                                     |                                     |                                     |
|--|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?                                   | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

**Discussion**

**a, b.**

Project operation would not result in an increased use of hazardous materials, nor would it increase the potential for a release of hazardous materials to the environment. The existing wastewater treatment process utilizes liquid chlorine, a hazardous material, to disinfect wastewater effluent. With project implementation, chlorine gas would be replaced by UV radiation, which is considered a non-hazardous material and a safer disinfection alternative for WWTP staff. Although additional sludge would be generated and frequently transported off-site to a landfill, sludge is not considered a hazardous material, and therefore, would not pose a significant hazard to the public. Project construction would involve use of relatively small quantities of materials such as diesel, gasoline, oils, and other engine fluids. Existing State standards govern the transport, use, and disposal of hazardous materials; because work would be conducted in accordance with these existing requirements, potential impacts would be less than significant and no mitigation measures are warranted.



**c.**

The proposed project would not emit hazardous emissions or handle hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. The nearest school, Quincy Junior-Senior High School, is located approximately 0.4 miles southwest of the project site.

**d.**

Review of the State's EnviroStor and GeoTracker databases showed that the project site and adjacent lands are not included on a list of hazardous materials sites.

**e, f.**

The project site is located on lands within portions of Gansner Airport's Airport Land Use Compatibility Plan zones 1, 3, 5, and 6. However, the solar PV panels are the only proposed structures in the airport influence area, and would be within Zone 5. As described in I.C, "Project Description," although the exact site design and layout of the solar PV panels is yet to be determined, the panels would be mounted in uniform rows on steel piers and are not expected to exceed 12 feet tall. Although height restrictions may apply in certain airport safety compatibility zones, according to Appendix A of the Airport Land Use Compatibility Plan, Zone 5, the "Sideline Zone," new structures are allowed. As discussed in Section III.C.1, "Aesthetics," although unlikely, the proposed solar PV panels could be a potential source of glare. Thus, the solar PV panels would be coated with anti-glare material and final plans would be subject to review by the Airport Land Use Commission (Mitigation Measure 1.1). Potential glare from the solar PV panels would not cause a safety hazard. Impacts with respect to safety hazards for people residing or working in the project area would be less than significant.

**g.**

The proposed project does not involve a use or activity that could interfere with emergency-response or emergency-evacuation plans for the area. Although an increase in traffic volume could interfere with emergency-response times, construction-related traffic associated with the proposed project would be minor due to the overall scale of the construction activities. Further, construction-related traffic would be spread over the duration of the construction schedule and would be minimal on a daily basis. Impacts are expected to be less than significant.

**h.**

The proposed project would be located in a semi-rural area. According to CAL FIRE, the proposed project is located primarily in a "very high" fire hazard area. However, the proposed project entails improvements to the existing WWTP, plus an additional pasture, and would not expose people or structures to an increased risk of fire. Impacts would be less than significant.

### **Mitigation**

Implementation of the mitigation measures recommended in this Initial Study, and compliance with existing laws and regulations, would ensure that construction and operation of the proposed improvements would not result in significant impacts.

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<http://www.countyofplumas.com/DocumentCenter/Home/View/4129>. Accessed November 2016.

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Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**9. HYDROLOGY AND WATER QUALITY. Would the project:**

- |  |                          |                                     |                                     |                                     |
|--|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a. Violate any water quality standards or waste-discharge requirements?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| f. Otherwise substantially degrade water quality?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| h. Place within a 100-year flood-hazard area structures which would impede or redirect flood flows?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| j. Inundation by seiche, tsunamis, or mudflow?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

**Discussion**

**a.**

The proposed project has the potential to temporarily degrade water quality due to increased erosion during project construction. However, as previously described in Section III.C.6, "Geology and Soils," BMPs would be implemented to provide soil stabilization, sediment control, and spill prevention throughout the duration of construction of the project to minimize impacts to water quality. The proposed project also has the potential to degrade water quality in the long term, during project operation. However, the project would comply with the terms of the Construction General Permit, which includes BMPs to reduce pollutants in post-construction runoff, as well as with the requirements for discharge to

Spanish Creek under the jurisdiction and enforcement of the Central Valley RWQCB. The intent of these regulations is to ensure the protection of public health in regards to treated wastewater discharge and the potential water quality concerns associated with pathogens, chemicals, nitrogen, etc. These regulations include measures to adequately disinfect for coliform, and require that incidental runoff be minimized and routinely monitored. Given these requirements, impacts of project construction and operation with respect to water quality standards and wastewater discharge requirements are expected to be less than significant.

**b.**

The proposed project would not require new groundwater supplies for construction or operation of the project. Although the project would result in minor overcovering of ground surfaces, this would not substantially interfere with groundwater recharge. Impacts on groundwater supplies would be less than significant.

**c.**

Project implementation would not substantially alter the existing drainage patterns at the treatment facility. Project implementation would alter the existing drainage patterns in the land disposal area if the proposed improvements in these areas are constructed. However, as previously described, BMPs for erosion and sediment control would be implemented during project construction. In the long-term operation of the project, if the QCSD-owned pastures are improved, the existing drainage patterns of these pastures would be altered due to recontouring and installation of berms. However, as described in Mitigation Measure 9.1, if the pastures are not being irrigated with treated effluent, stormwater runoff from the improved land disposal area would likely drain into Clear Stream or other natural drainage ways. Because stormwater would continue to be discharged to natural drainage ways during the non-irrigation season (when effluent is discharged to Spanish Creek), the new overall drainage patterns would be similar to existing overall drainage patterns. No significant impacts with respect to drainage patterns, erosion, or siltation are expected as a result of project construction or operation.

**d.**

Project implementation would result in changes in drainage patterns as discussed above. With respect to surface runoff, overcovering of soils would be limited to new treatment plant buildings, the individual piers supporting the solar PV panels, the solar PV panels themselves, and a small electrical equipment pad. Overcovering of soils as a result of pipeline installation would result in a negligible increase in the amount of surface runoff. Although the solar PV panels would overcover approximately 2.5 acres of the project site, the ground surface underneath and around the panels would be uncovered and some stormwater would continue to percolate into the soil. Because the amount of impervious surfacing would be relatively minor, effects on surface runoff volumes would also be negligible. As described above, if improvements to the QCSD-owned pastures are constructed, stormwater runoff during the non-irrigation season would be discharged to Clear Stream or other natural drainage ways, and the potential for on-site or downstream flooding would not be affected. In addition, project implementation would not result in an increase in the volume of treated effluent discharged to Spanish Creek. Further, in accordance with the Construction General Permit requirements, post-construction peak runoff volume would not exceed pre-construction peak runoff volume. Therefore, no significant impacts with respect to on-site or off-site flooding are expected as a result of project construction or operation.

**e.**

Other than open drainage ditches, no storm water drainage systems exist or are planned for the project site. Because the proposed project would only minimally increase the amount of impervious surfacing, the volume of storm water generated as a result of construction would increase only slightly, and would not exceed the capacity of the effluent return ditches. No impacts on storm drain systems or water quality are anticipated.

**f.**

Project construction could contribute to water quality degradation through increased erosion and sedimentation or through the release of fuels, paints, or other potentially hazardous materials. The use of BMPs for erosion control and spill prevention, combined with compliance with existing requirements governing the transport, use, and disposal of fuels and other potentially hazardous materials, would reduce the potential for water quality degradation during construction to an insignificant level. In the long term, operation of the project would not degrade water quality due to compliance with the NPDES permit.

**g.**

As mapped on the Federal Emergency Management Agency (FEMA) flood hazard map (Figure 7), the existing irrigation pond is located within the 100-year flood zone of Spanish Creek. The WWTP and QCSD offices, as well as the proposed solar PV panel site, are within 500-year flood areas (0.2% Annual Chance Flood Hazard area). The proposed project would not involve the construction of housing, either within the 100-year flood zone or elsewhere on the project site.

**h.**

See discussion under g) above. With the exception of the existing irrigation pond and the Alternative 1 outfall pipeline, none of the proposed improvements are located within a 100-year flood hazard area.

As part of the proposed project, the existing irrigation pond may be reconfigured to create two effluent storage basins; if constructed, this work would occur within the 100-year floodplain but all work would be conducted below existing grade and would not redirect flows. Likewise, installation of the Alternative 1 outfall pipeline would encroach into the 100-year floodplain; however, the pipeline would be underground and would not redirect flood flows. In addition, construction is subject to all provisions of Chapter 17, "Flood," of the Plumas County Code of Ordinances, including Section 8-17-.301 (Standards of Construction); and Section 8-17.302 (Standards for Utilities). It is the responsibility of the County Engineer to review final construction plans to ensure construction activities meet the standards of the Code.

Although proposed improvements would occur in and adjacent to the 100-year flood zone (i.e., placement of berms and substantial grading for irrigation cells, and installation of solar PV panels), given compliance with the requirements of the Plumas County Code of Ordinances, impacts are considered less than significant.

**i.**

Plumas County has several large regulated dams within its boundaries; however, the project would not directly or indirectly contribute to a potential failure of any of these dams. There are no flood-protection levees in the area. Although the project site is located within an area subject to flooding, completion of the project would not expose people or structures to a significant risk of loss, injury or death involving flooding.

**j.**

The project site is located within the interior of California where there is no threat of a tsunami. Although Lake Almanor could experience seiches as a result of very strong ground-shaking, this water body is located north of the project site and separated by intervening ridges that exceed the lake elevation; therefore, there is no risk for inundation of the project site resulting from seiches. With respect to mudflows, which are typically associated with areas also susceptible to landslides, the project site is relatively flat and there are no known active or inactive landslides in the project vicinity. Thus, mudflows would be unlikely to occur. The project site is located in an area where inundation by seiche, tsunami, or mudflow would not pose a significant risk to the proposed project.

**Mitigation**















MM 9.1. If applicable, engineered plans for the proposed improvements shall include drainage details to ensure that at times when the improved land disposal area is not being irrigated with treated effluent (e.g., during the non-irrigation season), stormwater runoff shall be allowed to enter natural drainage ways.

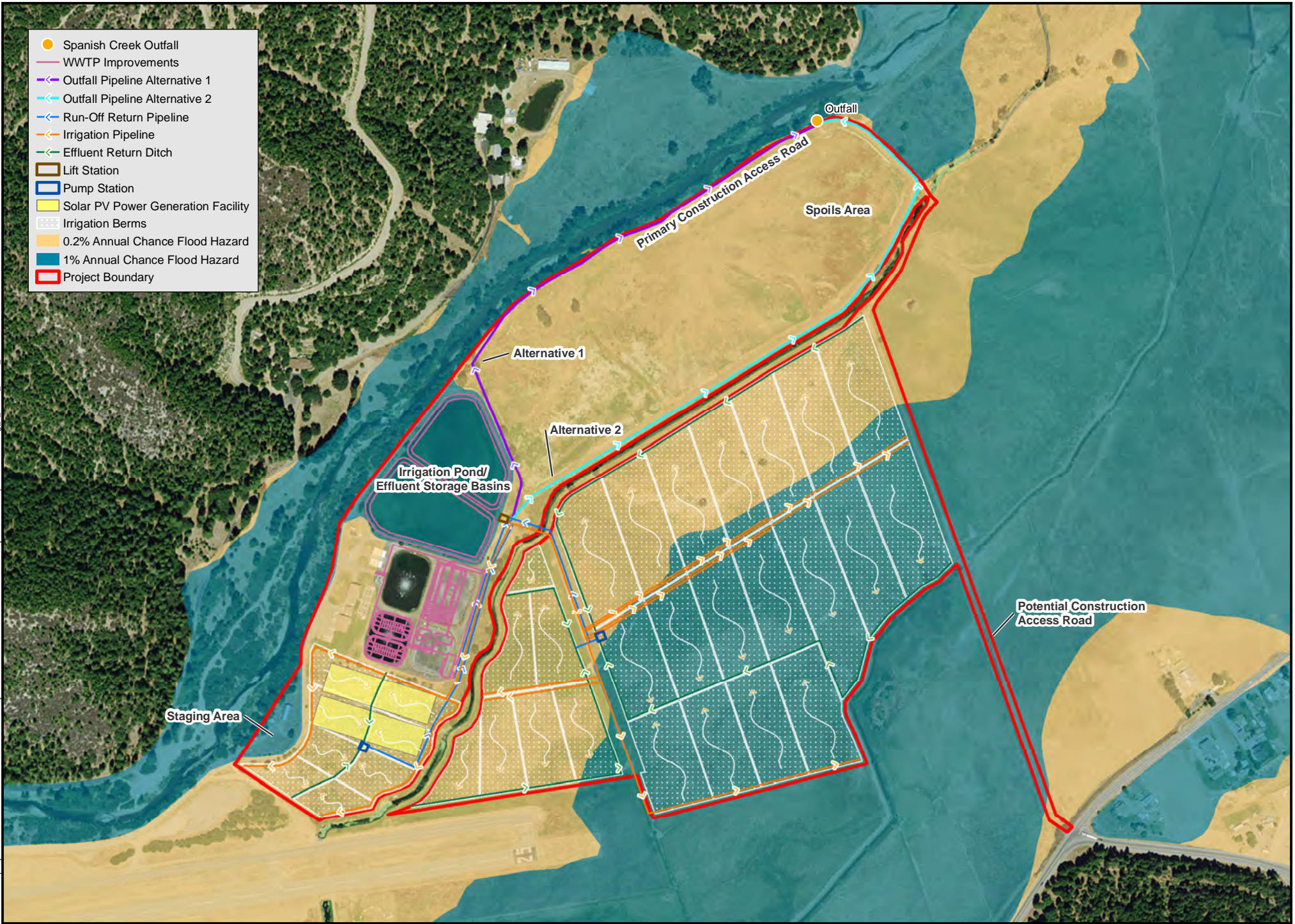
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Path: N:\company\files\01-Jobs\Active\032-31 PACE - Quincy, CSD Wastewater Treatment Plant\3-Map Documents\Fig. 7 Flood Areas\_8x11.mxd

-  Spanish Creek Outfall
-  WWTP Improvements
-  Outfall Pipeline Alternative 1
-  Outfall Pipeline Alternative 2
-  Run-Off Return Pipeline
-  Irrigation Pipeline
-  Effluent Return Ditch
-  Lift Station
-  Pump Station
-  Solar PV Power Generation Facility
-  Irrigation Berms
-  0.2% Annual Chance Flood Hazard
-  1% Annual Chance Flood Hazard
-  Project Boundary



All depictions are approximate. Not a survey product. 12.22.16



Figure 7  
**Flood Hazard Map**

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**10. LAND USE AND PLANNING. Would the project:**

- |  |                          |                          |                                     |                                     |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a. Physically divide an established community?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c. Conflict with any applicable habitat conservation plan or natural community conservation plan?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**Discussion**

**a.**

The proposed project is located at the eastern terminus of a semi-rural road, Spanish Creek Road. An existing ranch road, located between Quincy Junction Road and the existing emergency storage pond, may also be utilized to facilitate construction activities. While the use of these roads may cause minor, temporary delays, no established access routes would be eliminated or impeded. Since the proposed project entails improvements to the existing WWTP site and QCSD-owned pastures, implementation would not physically divide an established community.

**b.**

The Plumas County General Plan designates lands in the project site as Rural Residential and Agricultural Preserve. Plumas County zones the project site as Rural 10-acre (R-10) and Agricultural Preserve (AP). In addition, the majority of the project site is within a Combining Zone for Mobile Homes (MH) and Farming (F), and a smaller portion of the project site is designated as within a Combining Zone for Special Plan Scenic Areas (SP-ScA). According to Article 30, Section 9-2.3002 and Article 17, Section 9-2.1702, of the Plumas County Code, a public utility facility is a permitted use in the R-10 and AP Zones. Therefore, the project would not conflict with the County zoning designations for the site.

The proposed project conflicts with the purpose of the Mobile Home Combining Zone which is intended to provide for the “installation of manufactured homes and commercial coaches on support system.” However, because project implementation entails improvements to wastewater treatment and effluent disposal facilities, and installation of solar PV panels, where no change in land use would result, the conflict with this combining zone is irrelevant. Similarly, in regards to the Combining Zone for Special Plan Scenic Areas where design review of scenic areas, special plan-historical areas, and designated historical buildings are administered, because project implementation would entail improvements to an existing land use, the conflict with this Combining Zone is negligible; however, the proposed improvements may be subject to review/approval by the Special Plan-Review Committee. The proposed project complies with the Farming Combining Zone—which is intended to provide for animal husbandry—as cattle grazing would continue to be supported in the project site. Impacts would be less than significant.

**c.**

There are no current habitat conservation plans or natural community conservation plans in Plumas County that are applicable to the project site.

**Mitigation**

None necessary



**Documentation**

California Department of Fish and Wildlife. 2014. California Regional Conservation Plans Map.

<http://www.dfg.ca.gov/habcon/nccp/>. Accessed October 2016.

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Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**11. MINERAL RESOURCES. Would the project:**

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?                                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Discussion**

**a.**

A mineral resource is land on which known deposits of commercially viable mineral or aggregate deposits exist. The designation is applied to sites determined by the California Geological Survey as being a resource of regional significance, and is intended to help maintain any mining operations and protect them from encroachment of incompatible uses. There are no known significant mineral resources within the project site that would be of value to the region, as classified by the California Geological Survey.

**b.**

While the Plumas County General Plan notes that gold and copper mining contribute to the County’s economy, no known mineral resources are mapped within the project site. Further, project implementation would not result in a change in land use patterns and would therefore have no effect on the on-site or off-site availability of mineral resources.

**Mitigation**

None necessary

**Documentation**

Department of Conservation, California Geological Survey. 2007. SMARA Mineral Land Classification Maps. <http://www.quake.ca.gov/gmaps/WH/smaramaps.htm>. Accessed October 2016.

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\_\_\_\_\_. 2015. Plumas County Zoning. <http://mangomap.com/maps/47662/Plumas-County-Zoning>. Accessed September 2016.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**12. NOISE. Would the project result in:**

- |   |                          |                                     |                                     |                                     |
|---|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 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?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 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?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**Discussion**

**a, c, d.**

Project implementation has the potential to increase noise levels in the short term during project construction and in the long term due to project operation. With respect to short-term noise level increases, construction equipment anticipated to be used for project construction typically generate maximum noise levels ranging from 80 to 89 decibels (dBA) at a distance of 50 feet. Noise from construction activities generally attenuates at a rate of 7.5 dBA per doubling of distance, assuming the intervening ground is vegetated or unpacked earth. Typical sound levels and relative loudness for various types of noise environments are described in Table 8. At an attenuation rate of 7.5 dBA, 80-89 dBA noise levels would drop to 61-70 dBA at a distance of 300 feet. The nearest residence to the upper end of project site is approximately 480 feet away, on Beskeen Lane; the maximum noise level at this location would be approximately 64 dBA. In addition, a residence on Quincy Junction Road is located approximately 218 feet away from the southern end of the potential construction access road between the WWTP and Quincy Junction Road; the maximum noise level at this location would be approximately 73 dBA, but only when equipment is entering or exiting on to the ranch road. Construction noise levels at and near the project site would fluctuate, depending on the number and type of construction equipment operating at any given time.

Construction activities would be completed within approximately 21 months. As shown in Mitigation Measure 12.1, work associated with the proposed project would generally be limited to the hours of 7:00 a.m. and 5:00 p.m., Monday through Friday, and between 8:00 a.m. and 5 p.m. on weekends or on federally recognized holidays. With construction activities confined to these hours, and given the temporary nature of the construction activities, construction noise levels would be less than significant.

Project operation would not result in a perceptible increase in noise levels. Noise levels generated during normal operations of the new treatment facility are expected to be lower than the noise levels generated by the existing treatment facility. The replacement treatment facility would utilize blowers that are much quieter than the existing

blowers. However, the existing blowers may remain in service to provide occasional aeration to the effluent storage basins, if constructed. Under this scenario, the new treatment facility would have the same noise level as the existing. Operational noise levels are expected to be less than significant.

**Table 8  
Examples of Construction Equipment  
Noise Emission Levels**

<b>Equipment</b>	<b>Typical Noise Level (dBA) 50 ft from Source</b>
Air Compressor	81
Backhoe	80
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Derrick	88
Crane, Mobile	83
Dozer	85
Generator	81
Grader	85
Loader	85
Paver	89
Pile-Driver (Impact)	101
Pile-Driver (Sonic)	96
Pump	76
Saw	76
Truck	88

Source: Federal Transit Administration 2006:12-6, adapted by ENPLAN 2016.

**b.**

The proposed project would not expose people to or generate excessive groundborne vibration or groundborne noise levels. Project construction would consist primarily of excavation, grading, trenching, and concrete-pouring activities for improvements to the treatment and effluent disposal facilities, and installation of solar PV panels. Work would not involve the use of explosives, pile driving, or other intensive construction techniques that could generate significant groundborne noise or vibration. With regard to project operation, no groundborne vibration or groundborne noise would occur. Thus, the proposed project would not expose people to or generate excessive groundborne vibration or groundborne noise levels.

**e, f.**

The airport nearest the project site is the Gansner Field Airport, which is located directly adjacent to the project site to the southwest. Due to the airport's relatively small traffic volume, people working within the project area would not be exposed to excessive aircraft-generated noise levels.

**Mitigation**

MM 12.1. Construction work associated with the proposed project shall be limited to weekdays between the hours of 7:00 a.m. and 5:00 p.m., and on weekends and federally recognized holidays between the hours of 8:00 a.m. and 5 p.m., to the extent feasible; possible exceptions to this condition would be time-sensitive operations such as extended, continuous concrete pours, or to alleviate traffic congestion and safety hazards. Exceptions are subject to approval by the QCSO General Manager or his/her designee.

**Documentation**

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Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**13. POPULATION AND HOUSING. Would the project:**

- |   |                          |                          |                                     |                                     |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**Discussion**

**a.**

The proposed project would not induce substantial population growth in the area, either directly or indirectly. Construction-related jobs may be temporarily created, but most are expected to be filled by existing Plumas County residents. Due to the short-term nature of the jobs, project construction is not likely to attract new residents to the area. The existing housing stock in the local area is more than adequate to serve any new residents that may be attracted to the area.

As described in Section I.B.2, under “Project Need and Objectives,” the existing treatment plant currently serves approximately 2,787 DUEs, (or an ADWF of about 1.05 MGD) (Fiscal Year 2015 data), and has a total treatment capacity to serve approximately 3,300 DUEs. As part of completion of the Environmental Impact Report for the Plumas County General Plan in 2012, long-range growth projections were completed in order to determine impacts to public facilities, including the WWTP and collection system. The proposed project would not induce population growth over what was analyzed in the General Plan EIR and would not increase the existing treatment capacity of WWTP; impacts are considered less than significant.

**b.**

Project implementation would primarily consist of improvements to the wastewater treatment and effluent disposal facilities, as required by the NPDES permit. Implementing the proposed project would not displace existing housing or necessitate the construction of replacement housing elsewhere.

**c.**

For the reason described in response to item (b) above, implementation of the proposed project would not displace any people, or necessitate the construction of replacement housing elsewhere.

**Mitigation**

None necessary

**Documentation**

PACE Engineering, Inc. 2016. Final Preliminary Engineering Report and Feasibility Study for QCSD & EQSD Wastewater Treatment Plant and Effluent Disposal Project. October. Unpublished document on file with Quincy Community Services District.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**14. PUBLIC SERVICES.**

a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion**

**a-i, ii.**

The proposed project consists of improvements to wastewater treatment and effluent disposal facilities, and installation of solar PV panels within the existing WWTP footprint and land disposal area. New facilities would not increase fire hazards or increase the need for police services. Thus, the project would not substantially affect fire or police protection services.

**a-iii.**

The proposed project does not include the construction of any new housing units and would not result in any increase in Quincy’s population or increased numbers of students served by local schools.

**a-iv.**

The proposed project does not include the provision of any new park facilities nor would it adversely affect any existing park facilities.

**a-v.**

The proposed project is not intended for human occupancy, and would not result in a substantial increase of construction-related or operational traffic on local roadways. Therefore, the project is not expected to result in a significant impact on other public facilities.

**Mitigation**

None necessary

**Documentation**

PACE Engineering, Inc. 2016. Final Preliminary Engineering Report and Feasibility Study for QCSD & EQSD Wastewater Treatment Plant and Effluent Disposal Project. October. Unpublished document on file with Quincy Community Services District.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**15. RECREATION. Would the project:**

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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?                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Discussion**

**a.**

The proposed project does not include the construction of houses or businesses that would increase the number of residents in the area. As a result, implementing the proposed project would not result in an increased demand for recreational facilities.

**b.**

The proposed project does not include the construction or expansion of new recreational facilities.

**Mitigation**

None necessary

**Documentation**

PACE Engineering, Inc. 2016. Final Preliminary Engineering Report and Feasibility Study for QCSD & EQSD Wastewater Treatment Plant and Effluent Disposal Project. October. Unpublished document on file with Quincy Community Services District.



Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**16. TRANSPORTATION AND CIRCULATION. Would the project:**

- |   |                          |                          |                                     |                                     |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e. Result in inadequate emergency access?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**Discussion**

**a, b.**

The proposed improvements would be located within the existing footprint of the WWTP and adjacent QCSD-owned pastures, and would not alter the location, distribution, density, or growth rate of the population. As such, implementation of the proposed project is not expected to substantially affect the surrounding transportation network in the long term, and would not conflict with existing plans, ordinances, policies or programs. Short-term increases in traffic volume on the local road network would occur during construction, but would not be considered significant. In the long-term operation of the project, sludge would be hauled from the WWTP to a landfill every four days. The haul truck would likely be a Class 7 (26,001 - 33,000 lbs) diesel truck, which is a common type of heavy-duty vehicle (e.g., refuse, furniture, city transit bus, truck tractor), frequently utilizing local roads, Highway 70, and Highway 89. Impacts on local circulation and congestion would be less than significant.

**c.**

The nearest airport, Gansner Field Airport, is located directly adjacent to the project site. The proposed project does not involve any aviation-related uses, would not result in a change in air traffic patterns, and would not result in substantial aviation-related safety risks.

**d.**

The proposed project would not alter public access routes or increase hazards due to transportation design features or incompatible uses. No impact would occur.

**e.**

The project would not adversely affect emergency access in the short term because construction-related traffic would be minimal and spread over the duration of the construction schedule. Further, proposed improvements would be located within the existing footprint of the WWTP and QCSD-owned pastures, which are not open to public access, and would therefore not interfere with emergency access. In the long term, heavy-duty truck traffic would increase by about one round trip per four days, which is negligible in terms of overall traffic volumes in the area and would not affect emergency access. Therefore, impacts on emergency access would be less than significant.

**f.**

The proposed project consists of improvements to the treatment and effluent disposal facilities, and installation of solar PV panels, within the existing footprint of the WWTP and QCSD-owned pastures; all of which is not accessible to the general public. Therefore, project implementation would not conflict with local plans, policies, or programs regarding public transit, bicycle, or pedestrian facilities.

**Mitigation**

None necessary

**Documentation**

PACE Engineering, Inc. 2016. Final Preliminary Engineering Report and Feasibility Study for QCSD & EQSD Wastewater Treatment Plant and Effluent Disposal Project. October. Unpublished document on file with Quincy Community Services District.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**17. UTILITIES AND SERVICE SYSTEMS. Would the project:**

- |   |                          |                                     |                                     |                                     |
|---|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?                            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?                                     | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 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? | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| g. Comply with federal, state, and local statutes and regulations related to solid waste?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**Discussion**

**a.**

The proposed project would include improvements to the wastewater treatment and effluent disposal facilities, in response to the NPDES permit issued by the Central Valley RWQCB. Without improvements, the treatment facility would not meet the new effluent standards. With project implementation, the WWTP would comply with Central Valley RWQCB requirements for discharged effluent. No impact would occur.

**b.**

The proposed project includes improvements to the wastewater treatment and effluent disposal facilities. These improvements are primarily in response to new requirements included in the NPDES permit. As documented in this Initial Study, construction and operation of the proposed project could result in potentially significant environmental effects. With implementation of the mitigation measures recommended in this Initial Study, and compliance with existing laws and regulations, the proposed project would not result in significant environmental effects.

**c.**

Project implementation would entail the construction of storm water drainage facilities in the land disposal area, if these pastures are improved. However, as called for in Mitigation Measure 9.1, in Section III.C.9, "Hydrology and Water Quality," at times when the improved land disposal area is not being irrigated with treated effluent (e.g., during the non-irrigation season), stormwater runoff would be allowed to enter natural drainage ways. Because stormwater would continue to be discharged to natural drainage ways, the new overall drainage patterns would be similar to overall existing drainage patterns. Impacts would be less than significant.

**d.**

The proposed project would not require additional water supplies, or new or expanded entitlements. Relatively small amounts of water would be used during project construction; there would be no long-term impact on water supply.

**e.**

As documented in the Feasibility Study, the proposed improvements would maintain sufficient capacity to serve the QCSD's and EQSD's existing and projected wastewater treatment needs.

**f.**

Construction of the proposed project would result in a minimal amount of debris that would be disposed of at Altamont Landfill in Livermore, California. This one-time impact is not expected to significantly affect the capacity of the landfill. In the long-term operation of the project, up to approximately 2,730,000 pounds of dried sludge would be produced each year, which would likely be trucked to Altamont Landfill. However, this landfill has a projected operational life through 2045, and thus, has sufficient permitted capacity to accommodate the project's solid waste disposal needs over the expected lifespan of the WWTP.

**g.**

The proposed project would comply with all federal, state, and local statutes and regulations as they relate to solid waste.

### **Mitigation**

Implementation of the mitigation measures recommended in this Initial Study, and compliance with existing laws and regulations, would ensure that construction and operation of the proposed improvements would not result in significant impacts.

### **Documentation**

PACE Engineering, Inc. 2016. Final Preliminary Engineering Report and Feasibility Study for QCSD & EQSD Wastewater Treatment Plant and Effluent Disposal Project. October. Unpublished document on file with Quincy Community Services District.

Waste Management. 2016. Sustainability. Altamont Landfill. <http://altamontlandfill.wm.com/sustainability/index.jsp>. Accessed October 2016.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**18. MANDATORY FINDINGS OF SIGNIFICANCE.**

- |  |                          |                                     |                                     |                          |
|--|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| b. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**Discussion**

**a.**

As documented in the Initial Study, project implementation could affect special-status wildlife species, and nesting migratory birds; and result in the fill of jurisdictional waters, disturbance of subsurface cultural resources (if present), spread of noxious weeds, a new source of substantial light or glare, increased soil erosion and water quality degradation, increased air emissions, and temporarily increased noise levels. Design features incorporated into the project would avoid or reduce certain potential environmental impacts, as would compliance with existing regulations and permit conditions. Remaining impacts can be reduced to levels that are less than significant through implementation of the mitigation measures presented in the Initial Study. Because the Quincy Community Services District will adopt mitigation measures as conditions of project approval and will be responsible for ensuring their implementation, it has been determined that the project will not have a significant adverse impact on the environment.

**b.**

This Initial Study addresses the effects of wastewater treatment covering a period of 20 years following completion of project construction. Potential cumulative projects in the area include growth according to the build-out projections in Plumas County’s General Plan. The County’s Board of Supervisors adopted findings and a Statement of Overriding Considerations for the 2013 Plumas County General Plan, recognizing that General Plan implementation would have significant and unavoidable impacts related to land use and aesthetics; traffic and circulation; air quality; noise; hydrology, water quality, and drainage; public services, recreation resources, and utilities; agricultural and timber resources; biological resources; and cultural resources.

However, because the proposed improvements are being completed to comply with Central Valley RWQCB requirements for wastewater treatment and discharge and would not increase the capacity of the WWTP, there would be no additional growth inducement over what was analyzed in the County’s General Plan. Therefore, based on the discussion and findings in this Initial Study, cumulative impacts would be less than significant with implementation of the identified mitigation measures.

**c.**

As described herein, the project does not have characteristics that could cause substantial adverse effects on human beings either directly or indirectly.

## IV. LIST OF PREPARERS

### ENPLAN

Donald Burk ..... Environmental Services Manager  
Carla L. Thompson, AICP ..... Senior Environmental Planner  
Lindsay Kantor ..... Environmental Planner  
John Luper ..... Environmental Scientist  
Darrin Doyle ..... Environmental Scientist  
Sam Huscher ..... Environmental Scientist  
Catalina Llanos ..... Geospatial Technologist  
Heidi Shaw ..... Archaeologist  
Jessica McCoy ..... Archaeologist  
Teresa Baarts ..... Production Coordinator

### Quincy Community Services District

Larry Sullivan ..... General Manager

### PACE Engineering, Inc.

Paul Reuter ..... President and Managing Engineer  
Grant Maxwell ..... Staff Engineer

## **APPENDIX A.**

- California Natural Diversity Database RareFind Query Summary
- U.S. Fish and Wildlife Service Species List
- Potential for Federally Listed, Proposed, and Candidate Species, and Special-Status Species Identified by the CNDDDB to Occur on the Project Site
- List of Wildlife Species Observed
- List of Vascular Plant Species Observed

Rarefind (CNDDB) Report Summary (May 2016 Data)					
Quincy Wastewater Treatment and Effluent Disposal Project					
Listed Element	Quadrangle <sup>1</sup>				Status <sup>2</sup>
	CR	ME	QU	SP	
<b>Animals</b>					
American badger			●		SSSC
Bald eagle			●		FD, SE, SFP
Bank swallow			●		ST
Fringed myotis			●		None
Greater sandhill crane			●		ST, SFP
Long-legged myotis	●		●		None
Northern goshawk	●		●		SSSC
Osprey		●			None
Pallid bat			●		SSSC
Sierra Nevada red fox			●		ST
Sierra Nevada yellow-legged frog		●			FE, ST, SSSC
Townsend's big-eared bat		●	●		SC, SSSC
Western bumblebee		●	●		None
Western pearlshell	●		●		None
<b>Plants</b>					
California twisted spikerush	●				1B.3
Constance's rockcress		●	●		1B.1
Follett's monardella		●	●		1B.2
Northern coralroot		●			2B.1
Pointed broomsedge		●			2A
Quincy lupine		●	●	●	4.2
Sticky pyrrocoma			●		1B.2
Tall alpine-aster	●		●		1B.2
Watershield	●	●			2B.3
Webber's ivesia			●		FT, 1B.1
<b>Natural Communities</b>					
Darlingtonia seep	●				G4, S3

Highlighting denotes the quadrangle in which the project site is located. No special-status species or special-status natural communities have been reported in the following quadrangles Twain, Taylorsville, and Onion Valley. Special-status species mapped to encompass a portion of the study area include Webber's ivesia and American badger.

<sup>1</sup>Quadrangle Code

CR = Crescent Mills  
ME = Meadow Valley

QU = Quincy  
SP = Spring Garden

<sup>2</sup>Status Codes

*Federal*

FE = Federally Listed – Endangered  
FT = Federally Listed – Threatened  
FC = Federal Candidate Species  
FP = Federal Proposed Species  
FD = Federally Delisted  
FSC = Federal Species of Concern

*State*

SFP = State Fully Protected  
SR = State Rare  
SE = State Listed – Endangered  
ST = State Listed – Threatened  
SC = State Candidate Species  
SD = State Delisted  
SSSC = State Species of Special Concern

*Rare Plant Rank*

List 1A = Plants Presumed Extinct in California  
List 1B = Plants Rare, Threatened or Endangered in California and Elsewhere  
List 2 = Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere  
List 3 = Plants About Which We Need More Information – A Review List  
(generally not considered special-status, unless unusual circumstances warrant)  
List 4 = Plants of Limited Distribution – A Watch List  
(generally not considered special-status, unless unusual circumstances warrant)



**Threat Ranks**

0.1 = Seriously Threatened in California

0.2 = Fairly Threatened in California

0.3 = Not Very Threatened in California

*Natural Community Rank*

*Global Ranking*

G1 = Critically Imperiled      Critically imperiled in the state because of extreme rarity (often five or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation.

G2 = Imperiled      Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation.

G3 = Vulnerable      Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.

G4 = Apparently Secure      Uncommon but not rare; some cause for long-term concern due to declines or other factors.

G5 = Secure      Common, widespread, and abundant in the state.

*State Ranking*

S1 = Critically Imperiled      Critically imperiled in the state because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.

S2 = Imperiled      Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state.

S3 = Vulnerable      Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state.

S4 = Apparently Secure      Uncommon but not rare in the state; some cause for long-term concern due to declines or other factors.

S5 = Secure      Common, widespread, and abundant in the state.



# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office

FEDERAL BUILDING, 2800 COTTAGE WAY, ROOM W-2605

SACRAMENTO, CA 95825

PHONE: (916)414-6600 FAX: (916)414-6713

Consultation Code: 08ESMF00-2016-SLI-1828

July 14, 2016

Event Code: 08ESMF00-2016-E-03978

Project Name: Quincy Community Services District's Wastewater Treatment Plant Improvements Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

### To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

[http://www.nwr.noaa.gov/protected\\_species/species\\_list/species\\_lists.html](http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html)

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and

the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan ([http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html)). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment



United States Department of Interior  
Fish and Wildlife Service

Project name: Quincy Community Services District's Wastewater Treatment Plant  
Improvements Project

## Official Species List

### Provided by:

Sacramento Fish and Wildlife Office  
FEDERAL BUILDING  
2800 COTTAGE WAY, ROOM W-2605  
SACRAMENTO, CA 95825  
(916) 414-6600

**Consultation Code:** 08ESMF00-2016-SLI-1828

**Event Code:** 08ESMF00-2016-E-03978

**Project Type:** WASTEWATER FACILITY

**Project Name:** Quincy Community Services District's Wastewater Treatment Plant Improvements Project

**Project Description:** The project entails facility upgrades at the existing wastewater treatment plant, construction of an outfall pipeline, and improvements to adjacent pastures for surface irrigation. The driving need for this project is to comply with effluent limitations contained in the Central Valley Regional Water Quality Control Board's National Pollutant Discharge Elimination System (NPDES) permit to be issued summer 2016.

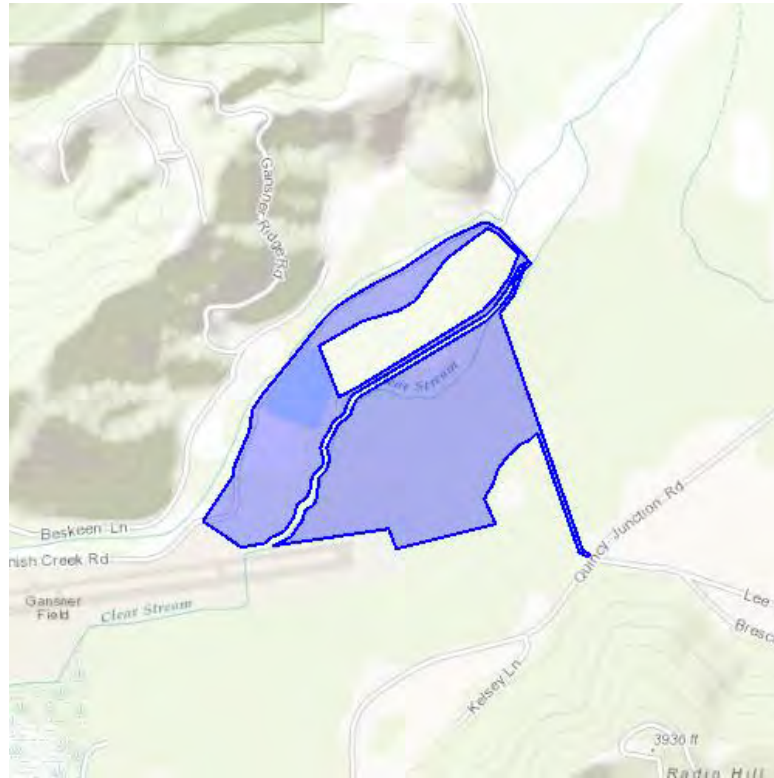
**Please Note:** The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.



United States Department of Interior  
Fish and Wildlife Service

Project name: Quincy Community Services District's Wastewater Treatment Plant  
Improvements Project

### Project Location Map:



**Project Coordinates:** The coordinates are too numerous to display here.

**Project Counties:** Plumas, CA



United States Department of Interior  
Fish and Wildlife Service

Project name: Quincy Community Services District's Wastewater Treatment Plant  
Improvements Project

## Endangered Species Act Species List

There are a total of 3 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Amphibians	Status	Has Critical Habitat	Condition(s)
California red-legged frog ( <i>Rana draytonii</i> ) Population: Entire	Threatened	Final designated	
Sierra Nevada Yellow-legged Frog ( <i>Rana sierrae</i> )	Endangered	Proposed	
<b>Fishes</b>			
Delta smelt ( <i>Hypomesus transpacificus</i> ) Population: Entire	Threatened	Final designated	



United States Department of Interior  
Fish and Wildlife Service

Project name: Quincy Community Services District's Wastewater Treatment Plant  
Improvements Project

## **Critical habitats that lie within your project area**

There are no critical habitats within your project area.

**Potential for Federally Listed, Proposed, and Candidate Species Identified by the IPaC Trust Resource Report, and Special-Status Species Identified by the CNDDDB to Occur on the Project Site**

COMMON NAME	SCIENTIFIC NAME	STATUS	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
<b>Plants</b>							
California twisted spikerush	<i>Eleocharis torticulmis</i>	1B.3	California twisted spikerush, a perennial rhizomatous herb, occurs in bogs, fens, meadows, and seeps. The species is reported between 3,300 and 3,900 feet in elevation. The flowering period is June and July.	Yes	No	No	Irrigated pasture in the study area provides marginally suitable habitat for California twisted spikerush. However, California twisted spikerush was not observed during the botanical survey and is not expected to be present.
Constance's rockcress	<i>Arabis constancei</i>	1B.1	Constance's rock-cress, a perennial herb, occurs on rocky, serpentine soils in chaparral and montane coniferous forests. The species is reported between feet 3,200 and 6,700 feet in elevation. The flowering period is May through July.	No	No	No	No rocky, serpentine soils or other potentially suitable habitats for Constance's rock-cress are present in the study area. Constance's rock-cress was not observed during the botanical survey and is not expected to be present.
Follett's monardella	<i>Monardella follettii</i>	1B.2	Follett's monardella, a perennial subshrub, occurs on rocky, serpentine soils in lower montane coniferous forests. The species is reported between 2,000 and 6,600 feet in elevation. The flowering period is June through September.	No	No	No	No rocky, serpentine soils or other potentially suitable habitats for Follett's monardella are present in the study area. Follett's monardella was not observed during the botanical survey and is not expected to be present.
Northern coralroot	<i>Corrallorhiza trifida</i>	2B.1	Northern coralroot, a perennial rhizomatous herb, occurs in association with wet, open to shaded, lower montane coniferous forests. The species is reported between 4,500 and 5,800 feet in elevation. The flowering period is June and July.	No	No	No	No wet forests or other suitable habitats for northern coralroot are present in the study area and the site is outside of the known elevation range of the species. Northern coralroot was not observed during the botanical survey and is not expected to be present.
Pointed broomsedge	<i>Carex scoparia</i>	2A	Pointed broom sedge is a perennial herb that occurs in marshes and wet meadows. The species is reported from 400 to 3,300 feet in elevation. The flowering period is May.	Yes	No	No	Irrigated pasture in the study area provides marginally suitable habitat for pointed broomsedge. However, pointed broomsedge was not observed during the botanical survey and is not expected to be present.



**Potential for Federally Listed, Proposed, and Candidate Species Identified by the IPaC Trust Resource Report, and Special-Status Species Identified by the CNDDDB to Occur on the Project Site**

COMMON NAME	SCIENTIFIC NAME	STATUS	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
Quincy lupine	<i>Lupinus dalesiae</i>	4.2	Quincy lupine occurs in open, dry, mixed-conifer forests, generally on light-colored fractured shale soils and disturbed areas. The species is reported between 2,900 and 6,300 feet in elevation. Populations are known to occur in Plumas, Sierra, and Yuba counties. The flowering period is May through August.	No	No	No	Review of CNDDDB records found that the nearest reported occurrence of Quincy lupine is approximately 0.5 miles west of the study area. All reported occurrences of Quincy lupine in the vicinity occur in forested landscapes; no occurrences have been reported on the floor of American Valley. No suitable habitat for Quincy lupine is present in the study area. Quincy lupine was not observed during the botanical survey and is not expected to be present.
Sticky pyrrocoma	<i>Pyrrocomma lucida</i>	1B.2	Sticky pyrrocoma occurs in meadows and alkali flats, usually on volcanic or mixed alluvial soils in sagebrush scrub or open forest habitats. The species is reported to occur between 1,900 and 6,400 feet in elevation. Populations are known to occur in Lassen, Plumas, Sierra, and Yuba counties. The flowering period is July and August.	No	No	No	No suitable habitat for sticky pyrrocoma is present in the study area. The species was not observed during the botanical survey and is not expected to be present.
Tall alpine-aster	<i>Oreostemma elatum</i>	1B.2	Tall alpine-aster, a perennial herb, occurs in bogs, fens, meadows, and seeps in upper montane coniferous forests. The species is reported between 3,300 and 6,900 feet in elevation. The flowering period is June and July.	Yes	No	No	Potentially suitable habitat for tall alpine-aster is present in the project site. However, the species was not observed during the botanical survey and is not expected to be present.
Watershield	<i>Brasenia schreberi</i>	2B.3	Watershield, a perennial rhizomatous herb, occurs in marshes, swamps, and ponds, including constructed ponds. The species is reported between sea level and 7,300 feet in elevation. The flowering period is June through September.	Yes	No	No	Potentially suitable habitat for watershield is present in the project site. However, the species was not observed during the botanical survey and is not expected to be present.

**Potential for Federally Listed, Proposed, and Candidate Species Identified by the IPaC Trust Resource Report, and Special-Status Species Identified by the CNDDDB to Occur on the Project Site**

COMMON NAME	SCIENTIFIC NAME	STATUS	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
Webber's ivesia	<i>Ivesia webberi</i>	FT, 1B.1	Webber's ivesia, a perennial herb, is associated with an open, sparsely vegetated plant community on vernal moist volcanic derived soils with a high clay content that shrinks and swells upon drying and wetting. These habitats occur as inclusions within Great Basin scrub, pinyon and juniper woodland, and lower montane coniferous forest. The species is reported between 3,300 and 6,800 feet in elevation. The flowering period is May through July.	No	No	No	Webber's ivesia was collected at an unspecified location in American Valley in 1886. CNDDDB broadly mapped the occurrence to encompass a five-mile radius around the community of Quincy, including portion of the study area; this population is presumed extirpated. No suitable habitat for Webber's ivesia is present in the study area. Webber's ivesia was not observed during the botanical survey and is not expected to be present.
<b>Animals</b>							
American badger	<i>Taxidea taxus</i>	SSSC	Badgers are most commonly found in dry, open areas in shrub, forest, and herbaceous habitats, with friable soils. Badgers dig burrows in dry, sandy soil, usually in areas with sparse overstory.	No	No	No	Review of CNDDDB records found that the American badger has been broadly mapped to include the entirety of the community of Quincy, including a portion of the study area. However, because soils in the study area are subject to periodic irrigation, the study area does not provide suitable habitat for the American badger. No American badgers or badger dens were observed during the wildlife survey, nor is the species expected to be present.
Bald eagle	<i>Haliaeetus leucocephalus</i>	FD, SE, SFP	Bald eagles nest in large, old-growth trees or snags in mixed stands near open bodies of water. Adults tend to use the same breeding areas year after year and often use the same nest, though a breeding area may include one or more alternate nests. Bald eagles usually do not begin nesting if human disturbance is evident. In California, the bald eagle nesting season is from February through July.	No	No	No	No old-growth trees/snags suitable for nesting are present on the project site. No bald eagles or eagle nests were observed during the wildlife survey. Further, no potentially suitable habitat occurs in the immediate vicinity of the project site. The species is unlikely to nest near the site or to be potentially affected by the proposed project.

**Potential for Federally Listed, Proposed, and Candidate Species Identified by the IPaC Trust Resource Report, and Special-Status Species Identified by the CNDDDB to Occur on the Project Site**

COMMON NAME	SCIENTIFIC NAME	STATUS	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
Bank swallow	<i>Riparia riparia</i>	ST	Bank swallows require vertical banks and cliffs with fine-textured or sandy soils near streams, rivers, ponds, lakes, or the ocean for nesting.	Yes (foraging)	No	Potentially Present	Review of CNDDDB records found that bank swallows are known to nest along Spanish Creek approximately 1 mile northeast and 1.5 miles west of the study area. The species is also listed in <i>A Checklist of the Birds of the QCSD Sewer Ponds and Immediate Vicinity</i> . Bank swallows were observed foraging in the study area during surveys conducted by American Valley Environmental in support of QCSD's Stream and Diffuser Enhancement Project. Although bank swallows may forage in the area, no suitable nesting habitat is present in the study. Project implementation would not adversely affect bank swallows.
Greater sandhill crane	<i>Grus canadensis tabida</i>	ST, SFP	Greater sandhill cranes nest in wetland habitats near grain fields in northeastern California. Nests consist of large mounds of vegetation in shallow water, natural hummocks, or muskrat houses. Shallow islands bordered by tules and cattails are ideal nesting sites.	Yes (foraging)	No	Potentially Present	Review of CNDDDB records found that the nearest reported observation of a greater sandhill crane is approximately 0.25 miles south of the study area. The species is also listed in <i>A Checklist of the Birds of the QCSD Sewer Ponds and Immediate Vicinity</i> . Suitable foraging habitat for the greater sandhill crane is present in the study area. However, the study area does not provide suitable nesting habitat. Project implementation would not adversely affect greater sandhill cranes.

**Potential for Federally Listed, Proposed, and Candidate Species Identified by the IPaC Trust Resource Report, and Special-Status Species Identified by the CNDDDB to Occur on the Project Site**

COMMON NAME	SCIENTIFIC NAME	STATUS	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
Northern goshawk	<i>Accipiter gentilis</i>	SSSC	Northern goshawks generally nest on north-facing slopes near water in old-growth coniferous and deciduous forests with more than 60 percent canopy closure. Goshawks re-use old nests and maintain alternate nest sites. Goshawks generally hunt in forests and along forest edges and riparian corridors.	Yes (foraging)	No	Potentially Present	No suitable nesting habitat for the northern goshawk occurs in the study area, nor were northern goshawks or goshawk nests observed during the wildlife survey. However, according to <i>A Checklist of the Birds of the QCSD Sewer Ponds and Immediate Vicinity</i> , the species has been observed in or adjacent to the study area. Potentially suitable foraging habitat is present along Spanish Creek and possibly along Clear Stream. Because no potentially suitable nesting or foraging habitat would be affected, project implementation would not adversely affect northern goshawks.
California red-legged frog	<i>Rana draytonii</i>	FT, SSSC	Suitable aquatic habitat for the California red-legged frog (CRLF) consists of permanent water bodies of virtually still or slow-moving fresh water, including natural and man-made ponds, backwaters within streams and creeks, marshes, lagoons, and dune ponds. The CRLF is not characteristically found in deep lacustrine habitats (e.g., deep lakes and reservoirs). Dense, shrubby riparian vegetation, e.g., willow ( <i>Salix</i> ) and bulrush ( <i>Scirpus</i> ) species, and bank overhangs are important features of CRLF breeding habitat. The CRLF tends to occur in greater numbers in deeper, cooler pools with dense emergent and shoreline vegetation.	No	No	No	Review of CNDDDB records found that the nearest reported population of CRLF is approximately 30 miles to the southwest. The polishing ponds, irrigation pond, and emergency storage pond do not provide suitable breeding habitat for the CRLF because they lack emergent vegetation and very little vegetation is present around their perimeters. Further, some of the ponds are periodically dried for maintenance activities. No CRLF or CRLF egg masses were observed in the ponds during the wildlife survey. Given the above findings, the CRLF is not expected to be present.

**Potential for Federally Listed, Proposed, and Candidate Species Identified by the IPaC Trust Resource Report, and Special-Status Species Identified by the CNDDDB to Occur on the Project Site**

COMMON NAME	SCIENTIFIC NAME	STATUS	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
Sierra Nevada yellow-legged frog	<i>Rana sierrae</i>	FE, ST, SSSC	The Sierra Nevada yellow-legged frog associates with perennial streams, lakes, ponds, and wet meadows between 4,500 and 12,000 feet above sea level along the western slope of the Sierra Nevada. Populations are reported from Fresno County north to Plumas County.	No	No	No	No suitable habitat for the Sierra Nevada yellow-legged frog is present in the study area, nor were any Sierra Nevada yellow-legged frogs observed during the wildlife survey. The Sierra Nevada yellow-legged frog would thus not be present.
Western pond turtle	<i>Emys marmorata</i>	SSSC	The western pond turtle associates with permanent or nearly permanent water in a variety of habitats. This turtle is typically found in quiet water environments. Pond turtles require basking sites such as partially submerged logs, rocks, or open mud banks, and suitable (sandy banks or grassy open fields) upland habitat for egg-laying. Nesting and courtship occur during spring. Nests are generally constructed within 500 feet of a waterbody, but some nests have been found up to 1,200 feet away. Pond turtles leave aquatic sites in the fall and overwinter in uplands nearby. Pond turtles return to aquatic sites in spring.	Yes	No	Present	Although not reported in the CNDDDB records review, approximately 25 western pond turtles were observed in the irrigation pond and others were observed in Clear Stream. No western pond turtles were observed in the polishing ponds and turtles have a very low potential to utilize these ponds.
Delta smelt	<i>Hypomesus transpacificus</i>	FT, SE	Delta smelt primarily inhabit the brackish waters of Sacramento-San Joaquin River Delta. Most spawning occurs in backwater sloughs and channel edgewaters.	No	No	No	The study area is well outside the range of the Delta smelt. Delta smelt would thus not be present.

**Potential for Federally Listed, Proposed, and Candidate Species Identified by the IPaC Trust Resource Report, and Special-Status Species Identified by the CNDDDB to Occur on the Project Site**

COMMON NAME	SCIENTIFIC NAME	STATUS	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
Sierra Nevada red fox	<i>Vulpes vulpes necator</i>	ST	The Sierra Nevada red fox inhabits remote mountainous areas where encounters with humans are rare. Preferred habitat appears to be red fir and lodgepole pine forests in the subalpine and alpine zones of the Sierra Nevada. This species may hunt in forest openings, meadows, and barren rocky areas associated with its high elevation habitats.	No	No	No	Review of CNDDDB records found that the nearest mapped occurrence of the Sierra Nevada fox is approximately two miles southeast of the study area, and is based on a fox sighting in 1975. Subsequent surveys in the area in 2001 and 2004 found only gray fox. Given that the study area does not have preferred habitat for the Sierra Nevada red fox and that Sierra Nevada red foxes have not been observed in the area since 1975, the species is not expected to be present.
Pallid bat	<i>Antrozous pallidus</i>	SSSC	Pallid bats inhabit grasslands, shrublands, woodlands, and forests, but are most common in open, dry habitats. Day roosts include caves, rock crevices, mines, and occasionally trees and buildings. Buildings are often used for night roosting. The breeding period is October through February, and pups are born between April and July.	Yes	No	Potentially Present	Review of CNDDDB records found that pallid bats have been reported approximately 0.75 miles west of the study area. Buildings in the study area provide suitable roosting habitat for pallid bats. Although no bats or evidence of roosting bats were observed during the wildlife survey, pallid bats have a moderate potential to be present.
Townsend's big-eared bat	<i>Corynorhinus townsendii pallescens</i>	SC, SSSC	Townsend's big-eared bat is found throughout California except in subalpine and alpine habitats, and may be found at any season throughout its range. The species is most abundant in mesic habitats. The bat requires caves, mines, tunnels, buildings, or other human-made structures for roosting.	Yes	No	Potentially Present	Buildings in the study area provide suitable roosting habitat for Townsend's big-eared bats. Although no bats or evidence of roosting bats were observed during the wildlife survey, Townsend's big-eared bats have a moderate potential to be present.

*Federal Status*

FE = Federally Listed – Endangered  
 FT = Federally Listed – Threatened  
 FC = Federal Candidate Species  
 FPT = Federal Proposed – Threatened  
 FD = Federally Delisted  
 FSC = Federal Species of Concern

*State Status*

SFP = State Fully Protected  
 SR = State Rare  
 SE = State Listed – Endangered  
 ST = State Listed – Threatened  
 SC = State Candidate Species  
 SD = State Delisted

SSSC = State Species of Special Concern

*CDFW Rare Plant Rank*

List 1A = Presumed extirpated in California and either rare or extinct elsewhere

List 1B = Rare or Endangered in California and elsewhere

List 2A = Presumed extirpated in California, but more common elsewhere

List 2B = Rare or Endangered in California, but more common elsewhere

List 3 = Plants for which we need more information - Review list (generally not considered special-status, unless unusual circumstances warrant)

List 4 = Plants of limited distribution - Watch list (generally not considered special-status, unless unusual circumstances warrant)

Threat Ranks

0.1 = Seriously Threatened in California

0.2 = Fairly Threatened in California

0.3 = Not Very Threatened in California

**Checklist of Wildlife Species Observed**  
**Quincy Wastewater Treatment and Effluent Disposal Project**  
 Summer 2016

Common Name	Scientific Name	Status
<b>BIRDS</b>		
American crow	<i>Corvus brachyrhynchos</i>	None
American robin	<i>Turdus migratorius</i>	None
Black phoebe	<i>Sayornis nigricans</i>	None
Canada goose	<i>Branta canadensis</i>	FD
California quail	<i>Callipepla californica</i>	None
Cliff swallow <sup>1</sup>	<i>Hirundo pyrrhonota</i>	None
Common raven	<i>Corvus corax</i>	None
Double-crested cormorant	<i>Phalacrocorax auritus</i>	None
Downy woodpecker	<i>Picoides pubescens</i>	None
European starling	<i>Sturnus vulgaris</i>	None
Eurasian collared dove	<i>Streptopelia decaocto</i>	None
Killdeer	<i>Charadrius vociferus</i>	None
Black-billed magpie	<i>Pica hudsonii</i>	None
Mallard	<i>Anas platyrhynchos</i>	None
Red-tailed hawk	<i>Buteo jamaicensis</i>	None
Red-winged blackbird	<i>Agelaius phoeniceus</i>	None
Tree swallow	<i>Tachycineta bicolor</i>	None
Turkey vulture	<i>Cathartes aura</i>	None
Wild turkey	<i>Meleagris gallopavo</i>	None
Wood duck	<i>Aix sponsa</i>	None
<b>MAMMALS</b>		
Black-tailed deer	<i>Odocoileus hemionus</i>	None
Coyote	<i>Canis latrans</i>	None
Gopher – unidentified		
Gray fox	<i>Urocyon cinereoargenteus</i>	None
Raccoon	<i>Procyon lotor</i>	None
<b>REPTILES</b>		
Western pond turtle <sup>2</sup>	<i>Emys marmorata</i>	SSSC

SSSC = State Species of Special Concern  
 FD = Federally Delisted

**Notes:**

<sup>1</sup>Active cliff swallow nests were observed on several buildings at the wastewater treatment facility.

<sup>2</sup>Approximately 25 western pond turtles observed in the existing irrigation pond.



# CHECKLIST OF VASCULAR PLANT SPECIES OBSERVED

Quincy Wastewater Treatment and Effluent Disposal Project

June 15 and 16, 2016

## Adoxaceae

*Sambucus nigra* subsp. *caerulea*

## Apiaceae

*Anthriscus caucalis*

*Conium maculatum*

## Asteraceae

*Achillea millefolium*

*Anthemis cotula*

*Artemisia douglasiana*

*Centaurea cyanus*

*Centaurea solstitialis*

*Cichorium intybus*

*Cirsium avense*

*Cirsium vulgare*

*Grindelia camporum*

*Hypochaeris radicata*

*Lactuca serriola*

*Leucanthemum vulgare*

*Madia gracilis*

*Matricaria discoidea*

*Sonchus asper* subsp. *asper*

*Sonchus oleraceus*

*Tanacetum vulgare*

*Taraxacum officinale*

*Tragopogon dubius*

## Betulaceae

*Alnus incana* subsp. *tenuifolia*

## Boraginaceae

*Myosotis discolor*

*Plagiobothrys stipitatus* var. *micranthus*

## Brassicaceae

*Barbarea orthoceras*

*Capsella bursa-pastoris*

*Hirschfeldia incana*

*Lepidium campestre*

*Lepidium latifolium*

*Lepidium virginicum* subsp. *menziesii*

*Raphanus raphanistrum*

*Rorippa curvisiliqua*

*Sisymbrium altissimum*

## Caprifoliaceae

*Symphoricarpos albus* var. *laevigatus*

## Muskroot Family

Blue elderberry

## Carrot Family

Bur-chervil

Poison hemlock

## Sunflower Family

Common yarrow

Mayweed

Mugwort

Bachelor's button

Yellow star thistle

Chicory

Canada thistle

Bull thistle

Valley gumplant

Rough cat's ear

Prickly lettuce

Ox-eye daisy

Slender tarweed

Pineapple weed

Prickly sow thistle

Common sow thistle

Common tansy

Dandelion

Goat's beard

## Birch Family

Mountain alder

## Borage Family

Yellow scorpion-grass

Small popcorn-flower

## Mustard Family

American wintercress

Shepherd's purse

Shortpod mustard

English peppergrass

Broadleaved peppergrass

Poor-man's peppergrass

Jointed charlock

Western yellow cress

Tumble-mustard

## Honeysuckle Family

Common snowberry

# CHECKLIST OF VASCULAR PLANT SPECIES OBSERVED

## Quincy Wastewater Treatment and Effluent Disposal Project

### Caryophyllaceae

*Cerastium fontanum* subsp. *vulgare*

### Chenopodiaceae

*Chenopodium* sp.

### Convolvulaceae

*Convolvulus arvensis*

### Cornaceae

*Cornus sericea*

### Cupressaceae

*Calocedrus decurrens*

### Cyperaceae

*Carex* sp.

*Carex feta*

*Carex nebrascensis*

*Eleocharis macrostachya*

*Scirpus microcarpus*

### Dipsacaceae

*Dipsacus fullonum*

### Elatinaceae

*Elatine californica*

### Equisetaceae

*Equisetum arvense*

*Equisetum laevigatum*

### Ericaceae

*Arctostaphylos viscida*

### Fabaceae

*Acmispon americanus* var. *americanus*

*Lathyrus latifolius*

*Lotus corniculatus*

*Lupinus bicolor*

*Medicago lupulina*

*Melilotus* sp.

*Trifolium dubium*

*Trifolium glomeratum*

*Trifolium hirtum*

*Trifolium hybridum*

*Trifolium longipes*

*Trifolium pratense*

*Trifolium repens*

*Trifolium retusum*

*Trifolium variegatum*

*Vicia sativa* subsp. *nigra*

### Pink Family

Common mouse-eared chickweed

### Goosefoot Family

Goosefoot

### Morning Glory Family

Bindweed

### Dogwood Family

American dogwood

### Cypress Family

Incense cedar

### Sedge Family

Sedge

Green-sheathed sedge

Nebraska sedge

Creeping spikerush

Small-fruited bulrush

### Teasel Family

Wild teasel

### Waterwort Family

California waterwort

### Horsetail Family

Common horsetail

Smooth scouring rush

### Heath Family

White-leaf manzanita

### Legume Family

Spanish lotus

Perennial sweet pea

Birdsfoot trefoil

Bicolored lupine

Black medick

Sweetclover

Little hop clover

Sessile-headed clover

Rose clover

Alsike clover

Longstalk clover

Red clover

White clover

Teasel clover

Variegated clover

Garden vetch

**CHECKLIST OF VASCULAR PLANT SPECIES OBSERVED**  
 Quincy Wastewater Treatment and Effluent Disposal Project

**Fagaceae**

*Quercus kelloggii*

**Oak Family**

California black oak

**Geraniaceae**

*Erodium cicutarium*  
*Geranium dissectum*

**Geranium Family**

Red-stemmed filaree  
 Cut-leaf geranium

**Grossulariaceae**

*Ribes aureum* var. *aureum*

**Gooseberry Family**

Golden currant

**Hypericaceae**

*Hypericum perforatum*

**St. John's-wort Family**

Klamath weed

**Juncaceae**

*Juncus balticus* subsp. *ater*  
*Juncus bufonius*  
*Juncus effusus*

**Rush Family**

Baltic rush  
 Toad rush  
 Soft rush

**Lamiaceae**

*Mentha* sp.

**Mint Family**

Mint

**Lemnaceae**

*Lemna* sp.

**Duckweed Family**

Duckweed

**Lythraceae**

*Lythrum portula*

**Loosestrife Family**

Water purslane

**Montiaceae**

*Calandrinia ciliata*

**Miner's Lettuce Family**

Red maids

**Myrsinaceae**

*Lysimachia nummularia*

**Myrsine Family**

Moneyplant

**Oleaceae**

*Ligustrum* sp.

**Olive Family**

Privet

**Onagraceae**

*Clarkia purpurea*

**Evening-Primrose Family**

Four-spot

**Papaveraceae**

*Eschscholzia californica*

**Poppy Family**

California poppy

**Pinaceae**

*Pinus ponderosa*

**Pine Family**

Ponderosa pine

**Plantaginaceae**

*Plantago lanceolata*  
*Veronica americana*  
*Veronica peregrina* subsp. *xalapensis*

**Plantain Family**

English plantain  
 American brooklime  
 Purslane speedwell

# CHECKLIST OF VASCULAR PLANT SPECIES OBSERVED

## Quincy Wastewater Treatment and Effluent Disposal Project

### Poaceae

*Aegilops cylindrica*  
*Alopecurus geniculatus*  
*Alopecurus pratensis*  
*Beckmannia syzigachne*  
*Bromus commutatus*  
*Bromus diandrus*  
*Bromus hordeaceus*  
*Bromus inermis*  
*Bromus japonicus*  
*Bromus tectorum*  
*Dactylis glomerata*  
*Deschampsia cespitosa*  
*Elymus glaucus*  
*Elymus repens*  
*Festuca arundinacea*  
*Festuca bromoides*  
*Festuca myuros*  
*Festuca perennis*  
*Holcus lanatus*  
*Hordeum brachyantherum* subsp. *brachyantherum*  
*Hordeum jubatum*  
*Hordeum marinum* subsp. *gussoneanum*  
*Hordeum murinum*  
*Phalaris arundinacea*  
*Poa bulbosa*  
*Poa pratensis*  
*Secale cereale*

### Polygonaceae

*Persicaria maculosa*  
*Polygonum aviculare* subsp. *depressum*  
*Rumex acetosella*  
*Rumex crispus*  
*Rumex triangulivalvis*

### Portulacaceae

*Portulaca oleracea*

### Ranunculaceae

*Ranunculus repens*

### Rhamnaceae

*Ceanothus cuneatus* var. *cuneatus*  
*Ceanothus integerrimus*

### Rosaceae

*Crataegus castlegarensis*  
*Potentilla recta*  
*Potentilla gracilis* var. *fastigiata*  
*Prunus virginiana* var. *demissa*  
*Rosa woodsii* subsp. *ultramontana*

### Grass Family

Jointed goatgrass  
Marsh foxtail  
Meadow foxtail  
American sloughgrass  
Hairy chess  
Ripgut grass  
Soft chess  
Smooth brome  
Japanese brome  
Downy brome  
Orchard grass  
Tufted hairgrass  
Blue wild rye  
Quackgrass  
Tall fescue  
Six-weeks fescue  
Foxtail fescue  
Annual ryegrass  
Common velvet grass  
Meadow barley  
Foxtail barley  
Mediterranean barley  
Foxtail barley  
Reed canary grass  
Bulbous bluegrass  
Kentucky bluegrass  
Rye

### Buckwheat Family

Lady's thumb  
Common knotweed  
Sheep sorrel  
Curly dock  
Triangular-valved dock

### Purslane Family

Common purslane

### Buttercup Family

Creeping buttercup

### Buckthorn Family

Buckbrush  
Deer brush

### Rose Family

Castlegar hawthorn  
Sulphur cinquefoil  
Slender cinquefoil  
Western choke-cherry  
Interior rose

## CHECKLIST OF VASCULAR PLANT SPECIES OBSERVED

### Quincy Wastewater Treatment and Effluent Disposal Project

*Rubus leucodermis*

*Rubus armeniacus*

*Spiraea douglasii*

Black-capped raspberry

Himalayan blackberry

Douglas' spiraea

#### **Rubiaceae**

*Galium aparine*

#### **Madder Family**

Cleavers

#### **Salicaceae**

*Populus balsamifera* subsp. *trichocarpa*

*Salix* sp.

*Salix exigua*

*Salix lasiandra* var. *lasiandra*

#### **Willow Family**

Black cottonwood

Willow

Sandbar willow

Pacific willow

#### **Scrophulariaceae**

*Verbascum thapsus*

#### **Snapdragon Family**

Woolly mullein

#### **Themidaceae**

*Triteleia hyacinthina*

#### **Brodiaea Family**

Wild hyacinth

#### **Typhaceae**

*Typha latifolia*

#### **Cattail Family**

Broadleaf cattail