APPENDIX "J"

City of Redding

Notice of Preparation

To:

From:

City of Redding Department of Public Works – Engineering 777 Cypress Avenue Redding, CA 96001

Subject: Notice of Preparation of a Draft Environmental Impact Report

Pursuant to the California Environmental Quality Act (CEQA), the City of Redding will be the Lead Agency and will prepare an Environmental Impact Report (EIR) for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The City of Redding Pump Station 1 Replacement Project (project) involves the construction of a new state-of-the-art fish screen, intake, and pumping plant to replace the existing Pump Station (PS) 1, which has reached the end of its useful life. The new PS1 would be located along the right riverbank of the Sacramento River, approximately 0.3 miles upstream of the Diestlehorst Bridge and approximately 0.7 mile upstream of the Anderson-Cottonwood Irrigation District (ACID) dam in the City of Redding (City). The project would also restore Jenny Creek to an open channel along its historical alignment and remove the existing Jenny Creek culverts. Additional facilities included in the Project include a public restroom, underground utilities, new access roads which would also serve as a connection between the Jenny Creek Trail and the Sacramento River Trail, and demolition of the existing PS1 facility and restoration of the site to a native condition once the new PS1 has been commissioned.

The complete project description including figures documenting the project location are contained in the attached materials. A copy of the CEQA Environmental Checklist is also attached.

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

Please send your response to <u>Amber Kelley</u> at the address shown above. We will need the name for a contact person in your agency.

Project Title: City of Redding Pump Station 1 Replacement Project

Project Applicant: City of Redding

<u>anuary 19, 2024</u> e Date

Ember Keller Signature

Environmental Compliance Manager

Title

(530) 225-4046

Telephone

Reference: California Code of Regulations, Title 14, (CEQA Guidelines) Sections 15082(a), 15103, 15373. *N:Shells/Envirodocs/NOP*

Attachment 1 Project Description

Jacobs

Project Description

Document No.: 230627202309_56aa749d

City of Redding Department of Public Works – Engineering

City of Redding Pump Station 1 Replacement Project January 8, 2024



Jacobs

Project Description

Client name:	City of Redding Department of Public Works – Engineering					
Project name:	City of Redding Pump Station 1 Replacement Project					
Client reference:	City of Redding	Project no:	W8Y06201			
Document no:	230627202309_56aa749d	Project manager:	Kim Hein, PE			
Version:	Draft	Prepared by:	Jacobs Engineering Group Inc.			
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Acronyms and Abbreviations

AB	Assembly Bill
ACID	Anderson-Cottonwood Irrigation District
ADA	Americans with Disabilities Act
BA	biological assessment
BMPs	best management practices
BO	biological opinion
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
cfs	cubic feet per second
City	City of Redding
СМР	corrugated metal pipe
CPOD	Change of Point of Diversion
CVFPB	Central Valley Flood Protection Board
CWC	California Water Code
CY	cubic yards
dam	Anderson-Cottonwood Irrigation District Diversion Dam
DBH	diameter at breast height
EIR	Environmental Impact Report
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FGC	California Fish and Game Code
fps	feet per second
FWTP	Foothill Water Treatment Plant

GWY	greenway
HP	horsepower
IP	Individual Permit
mgd	million gallons per day
NEPA	National Environmental Protection Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NWP	Nationwide Permit
PCN	Pre-Construction Notification
project	City of Redding Pump Station 1 Replacement Project
PS1	Pump Station 1
psf	pounds per square foot
Reclamation	U.S. Bureau of Reclamation
REU	Redding Electric Utility
RMC	Redding Municipal Code
RWQCB	Central Valley Regional Water Quality Control Board
SCADA	supervisory control and data acquisition
SHPO	State Historic Preservation Officer
SMARTs	Stormwater Monitoring and Reporting Tracking System
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service

Project Description

USGS	U.S. Geological Survey
VFD	variable-frequency drives
WQC	Water Quality Certification
WSE	water surface elevation

1. **Project Information**

Project Title:

City of Redding Pump Station 1 (PS1) Replacement Project (project)

Project Proponent:

City of Redding Department of Public Works – Water Utility 777 Cypress Avenue Redding, CA 96001

Federal Lead Agency:

U.S. Army Corps of Engineers, Sacramento District 1325 J Street Sacramento, CA 95814

State Lead Agency:

City of Redding Department of Public Works – Water Utility 777 Cypress Avenue Redding, CA 96001

Contact Person and Phone Number:

Kurt Maire, City of Redding, Associate Civil Engineer 530-225-4081

Project Location:

The project site is on the southern bank of the Sacramento River approximately 0.3 mile upstream of the Diestelhorst Bridge and approximately 0.7 mile upstream of the Anderson-Cottonwood Irrigation District (ACID) Diversion Dam (dam) (Figure 1).

Township:

T32N

Range: R05W

Project Sponsor's Name and Address: City of Redding Department of Public Works – Water Utility 777 Cypress Avenue Redding, CA 96001

General Plan Designation: GWY

Zoning: Open-Space District

Description of Project: See Section 2, Project Description



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Figure 1. Project Location

2







Land Uses and Setting:

The project is on the southern bank of the Sacramento River along the Sacramento River Trail (River Trail). Consistent with the land use and zoning designations, the project area is primarily used for recreation. Other land use types adjacent to the project area include Greenway, Low-density Residential (less than 10 units per acre), Public Facilities or Institutional, and Parks.

Other Public Agencies Whose Approval Is Required

(e.g., permits, financing approval, or participation agreement):

To support construction of the project, the City of Redding (City) will obtain necessary environmental and construction permits and approvals from the following agencies:

- U.S. Army Corps of Engineers (USACE): USACE regulates the discharge of dredge or fill material into waters (including wetlands) of the United States under Section 404 of the Clean Water Act and obstruction/alteration of a navigable waterway under Section 10 of the Rivers and Harbor Act. A Section 404 Pre-Construction Notification (PCN) will be required for work within the ordinary high-water mark (OHWM) of the Sacramento River and Jenny Creek. It is assumed that the project may be covered under two separate Nationwide Permits (NWPs). NWP 58 Utility Line Activities for Water and Other Substances would provide coverage for the new intake, and NWP 27 Aquatic Habitat Restoration, Enhancement, and Establishment Activities would provide coverage for the restoration of Jenny Creek. The USACE Sacramento District will have the authority to decide if the project is eligible for coverage under two NWPs or if an Individual Permit (IP) is required.
- U.S. Fish and Wildlife Service (USFWS)/National Marine Fisheries Service (NMFS): Section 7(a) of the federal Endangered Species Act (ESA) requires that the lead agency consult with USFWS or NMFS on any activities that might affect species listed as endangered or threatened. A biological assessment (BA) documenting potential impacts to aquatic species will be prepared to USACE standards and will be submitted to USACE for initiation of Section 7 consultation with NMFS. A BA for terrestrial species will be prepared with updated project-specific information for submittal to USACE to initiate Section 7 consultation with USFWS.
- U.S. Bureau of Reclamation (Reclamation): Because a portion of the project would be constructed on federal lands owned by Reclamation, an amendment to the City's Use Authorization is required. This amended Use Authorization would provide coverage for the City to construct new utilities and telecommunications within Reclamation's right-of-way.
- State Water Resources Control Board (SWRCB): The SWRCB is responsible for overseeing compliance with Section 1700 et seq. of the California Water Code (CWC), which includes the process through points of diversion of surface water are established and moved. Because the project involves moving an existing diversion structure, a Change of Point of Diversion (CPOD) will be required. An approved CPOD would only allow for the relocation of the structure; no additional water rights would be granted through this process.
- California Department of Fish and Wildlife (CDFW): CDFW is responsible for overseeing compliance with Section 1600 of the California Fish and Game Code (FGC), which requires a Lake or Streambed Alteration Agreement for any action that substantially diverts, obstructs, or changes the natural flow of a river, stream, or lake, or uses material from a streambed. Due to the nature of the project, a Section 1600 agreement will need to be obtained from CDFW before any project-related activities within the Sacramento River can occur. CDFW also regulates the California Endangered Species Act (CESA). CESA (FGC Sections 2050 to 2097) is similar to the federal ESA in that it prohibits the "take" of listed and candidate (petitioned to be listed) species. CESA authorization may be required for impacts to listed anadromous fish species due to pile-driving-related impacts.

- State Historic Preservation Officer (SHPO): To demolish the existing PS1 structure, consultation with SHPO to achieve Section 106 compliance will be required. Additionally, in compliance with Assembly Bill (AB) 52, due to excavation within and along the banks of the Sacramento River, consultation with tribal representatives from local Native American tribes will also be required.
- Central Valley Flood Protection Board (CVFPB): CVFPB requires an encroachment permit for any
 activity that occurs in a regulated stream, designated floodway on federal flood control project levee
 slopes, or within 10 feet of the levee toe. The project will be constructed within a designated 0.2%
 Annual Chance Flood Hazard; therefore, a permit is required from CVFPB.
- Central Valley Regional Water Quality Control Board (RWQCB): The project will require multiple approvals from RWQCB. RWQCB issues permits for activities that could cause impacts to any waters of the United States, including surface water and groundwater. RWQCB requires that a National Pollutant Discharge Elimination System (NPDES) permit be obtained if pollutants will be discharged to surface water. The City will therefore be required to obtain a NPDES permit to discharge dewatering water associated with in-river and in-creek work back into the Sacramento River. In addition, after a contractor has been selected for the project, the contractor will be responsible for preparing a stormwater pollution prevention plan (SWPPP), obtaining a waste discharge identification number, and filing the Notice of Intent to discharge in the Stormwater Monitoring and Reporting Tracking System (SMARTs). Finally, RWQCB also issues a Water Quality Certification (WQC) under authority of Section 401 of the Clean Water Act. After submittal of the Section 404 PCN to USACE, the City will submit a copy of the notification and applicable fees to RWQCB to obtain the Section 401 WQC.
- City of Redding: According to Redding Municipal Code (RMC) 16.12.030 A and E, the project is
 expected to be exempt from a grading permit because the project area is entirely located within lands
 owned by the United States government (Reclamation) or within City easements, with the exception of
 an access road located on privately owned property. Additional permits to be obtained from the City
 include an Encroachment Permit, a Building Permit, Transportation Permits, and a Use Permit. The
 City's Planning Division would need to approve the Use Permit, and all other permits would be issued
 by the City's Building Division.

2. Project Description

The City is proposing to construct a new state-of-the-art fish screened intake and pumping plant to replace the existing PS1 along the southern bank of the Sacramento River, approximately 0.3 mile upstream of the Diestlehorst Bridge and approximately 0.7 mile upstream of the ACID dam in the city of Redding (Figure 1).

The existing pump station building is shown on Figure 2. This building was constructed in 1937 and has reached the end of its useful life. A decorative mural was added to the exterior of the building in 2022.

Project Description



Figure 2. Landside Photograph of Existing PS1

The existing PS1 is in a shallow area of the Sacramento River, and diversion operations are often dependent on the status of the ACID dam and the overall water surface elevation (WSE) of Lake Redding and the Sacramento River discharge from Keswick Reservoir. The ACID dam is a seasonal diversion dam used to back up the water in the Sacramento River and create an elevated pool to allow water diversion into the ACID Canal. The dam is typically installed in April at the beginning of irrigation season and removed in early November at the end of the season. When the dam is removed, water depths in the area around PS1 are approximately 3 feet or less. Four of the five pump units cannot operate due to cavitation caused by the shallow water depth. The intakes and fish screens at the existing PS1 are shown on Figure 3.

Project Description



Figure 3. Existing PS1 Intake and Fish Screens

2.1 Project Background

The City's Pump House No. 1 (referred to herein as Pump Station 1 [PS1]) was constructed in 1937 and draws raw water from the Sacramento River and pumps to FWTP for treatment. FWTP is the City's largest and primary water supply, providing more than half its water supply demands. The existing PS1 supplies approximately 28.9 million gallons per day (mgd), or 44.7 cubic feet per second (cfs), of raw water to FWTP through two 30-inch-diameter pipelines (installed circa 1976 and 2010). Raw water is diverted under the City's pre-1914 Sacramento River water rights and its Central Valley Project contract supplies.

PS1 supplies raw water to the City's Foothill Water Treatment Plant (FWTP) for treatment. FWTP is the City's largest and primary water supply and provides more than half of its water supply demands for the city of Redding. Both PS1 and FWTP have been identified as critical facilities in the City's *Local Hazard Mitigation Plan* to supply safe drinking water, meet fire suppression demands, and supply the Redding Power Plant (City of Redding 2023). The existing PS1 facility has reliably served the City's water supply for over 85 years but has significant limitations in terms of continuing to meet the City's increasing water supply needs in a reliable and environmentally acceptable manner. The City's water system demands will continue to increase with population growth, and projected demands require a supply of up to 42 mgd (65 cfs) from PS1.

PS1 underwent major modifications in 1967, 1981, and 1987 to add pumping capacity by replacing aging pumps and adding new pumping units (400-horsepower [HP] pump number 3 in 1967, 700-hp pump

numbers 4 and 5 in 1981, and 500-hp pump numbers 1 and 2 in 1987). The Sacramento River in the Redding area is critical for the Sacramento River fishery resources and has spawning beds used by endangered salmon species. The existing intake was retrofitted circa 2006 to include six single-cylinder intake screens (drums).

As noted under Section 2, PS1 is in a shallow area of the Sacramento River, which impacts its operations depending on the status of the ACID dam. The ACID dam, located approximately 0.7 mile downstream of PS1, is a seasonal dam used to back up the water in the Sacramento River and create an elevated pool to allow diversion into the ACID Canal. The dam, comprised of a series of flashboards, is typically installed in April at the beginning of the irrigation season and removed in early November at the end of the season. When the dam is removed, water depths in the area around the existing pump station are approximately 3 feet or less. As a result, four of the five pump units cannot operate because of cavitation caused by the shallow water depth.

The City completed a *Feasibility Study for the City of Redding Pump House No. 1 Fish Protection Project* in 2002 (CH2M HILL 2002) and had the project re-evaluated in 2022 under the *Final Preliminary Design Report, City of Redding Pump House No. 1 Replacement Project* (Jacobs 2022). These evaluations provided recommendations to design and build the new PS1 approximately 1,400 feet (1,420 feet along the River Trail and 1,380 feet along the Sacramento River) upstream of the existing PS1. The relocation of PS1 to this upstream location is the proposed project.

2.2 California Environmental Quality Act

The California Environmental Quality Act (CEQA) was enacted in 1970 with the primary purpose of informing local and state government decision makers and the public about the potential significant environmental effects of proposed activities and identifying the ways that environmental damage can be avoided or minimized to prevent significant, avoidable damage to the environment. Because of the potentially significant and unavoidable impacts associated with noise and biological resources associated with pile driving, an Environmental Impact Report (EIR) is required. The development of the EIR has recently been initiated, and the Notice of Preparation (NOP) is expected to be published in January 2024. The City is serving as the CEQA lead agency.

2.3 National Environmental Policy Act

The National Environmental Protection Act (NEPA) was signed into law on January 1, 1970, to establish a national environmental policy with the goals of protecting, maintaining, and enhancing the environment. NEPA provides federal agencies with a process for implementing these goals. NEPA compliance is required by all federal agencies undertaking a proposed action or project, as well as actions and projects undertaken by non-federal agencies that are federally funded. NEPA compliance will be required if the project is determined to be ineligible for two NWPs (as described under Section 2.1) and an Individual Permit is required. USACE will serve as the NEPA lead agency if required.

2.4 Project Purpose and Need

PS1 must be replaced for the following reasons:

Modified fish screens were installed at PS1 in 2006 and are being monitored for effectiveness under a waiver from NMFS, a division of the National Oceanic and Atmospheric Administration (NOAA)
 Fisheries, to continue operating the facility. There is concern the intake does not meet state and federal fish screen criteria (i.e., submergence of at least one screen radius) at low river stages.

- There is limited intake capacity during low river stages, which is compounded during minimum river flows when the ACID dam flashboards are not in place.
- The City's Water Master Plan proposed FWTP to be expanded up to a capacity of 42 mgd. Current capacity is 28.9 mgd.
- PS1 is generally outdated, relative to current design and service standards, and needs numerous minor and significant improvements. The primary electrical supply and control equipment is relatively old and cannot accommodate load increases; there is no space on the main intake structure for new equipment such as pumps or fish screen-related components; and outdoor pumps cause excessive noise and complaints in an area of heavy public recreational use. Workspace for maintenance around the pumps and other equipment is limited.

2.5 Project Summary

The project would consist of the following components:

- Constructing a new screened intake and pump station along the southern riverbank of the Sacramento River, west of Jenny Creek
- Restoring Jenny Creek to an open channel and removing the existing Jenny Creek culverts
- Installing a public restroom
- Installing a new access road/public trail and utilities from Overhill Drive to the PS1 site
- Demolishing the existing PS1 intake and mechanical and electrical facilities and providing restoration within the Sacramento River and along the river bank to a native condition
- Restoring and repurposing or demolishing the existing PS1 building to restore the site to native conditions

These main components of the project are identified on Figure 4 and described in greater detail in Sections 2.5.1 through 2.5.7.



Figure 4. Project Components

2.5.1 Intake and Fish Screen

The project would entail a new screened intake structure designed to accommodate a capacity of 42 mgd, as compared to the existing PS1 capacity of approximately 29 mgd. Although the daily pumping capacity of the new PS1 would exceed the designed capacity of the existing PS1, the annual diversion amount would continue to be less than or equal to the City's water rights. No additional water rights would be secured on behalf of the proposed project. The point of diversion, however, would be relocated, resulting in the need for a CPOD approval.

The intake would entail two cylindrical tee, drum-type fish screen units, commonly referred to as tee screens. These screens would be electrically operated 42-inch-diameter by 60-inch-long rotating drum wedge wire screens with integral brush cleaning system and retrieval system.

The fish screens provide fish protection by excluding fish from being entrained by the intake structure and allowing them to safely move past the facility while swimming in the source water body. In compliance with screen-sizing criteria for salmonid protection limit, the maximum slot size to 1.75 millimeters and the maximum approach velocity to 0.33 feet per second (fps) or 0.40 fps, as established and regulated by California Department of Fish and Game (2010) and NMFS (2022), respectively. Because CDFW's design criteria relative to approach velocity are more stringent, the proposed intake was designed to allow for a maximum approach velocity of 0.33 fps.

A key objective of the project is to allow operation of PS1 during periods of lower river flow than the current PS1 allows. As such, the project was designed to allow operation of PS1 when the Sacramento River has flow as low as 2,000 cfs. Reclamation's proposed flow objective below Keswick Dam is 3,250 cfs, according to Table 1 of the NMFS June 4, 2009, Biological Opinion (BO) (NMFS 2009). However, the 1960 Memorandum of Agreement between Reclamation and CDFW, as well as the SWRCB Water Rights Orders 90-05 indicate minimum flow requirements of 2,000 cfs on the Sacramento River below Keswick Dam during a critically dry period. Therefore, 2,000 cfs was used as the minimum flow design criteria (Jacobs 2023). The tee screens would be set at an elevation that provides adequate clearance above the riverbed and at least one screen radius of submergence at the design low river stage.



Figure 5. Sacramento River Flood at Existing PS1 1940

Conversely, Reclamation's operations of Shasta Dam regulate the 10-, 50-, and 100-year floods to 79,000 cfs, according to the Flood Insurance Study for Shasta County, California, dated March 17, 2011 (FEMA 2021). Therefore, the project was designed to operate when flows within the Sacramento River are as high as 79,000 cfs (Jacobs 2023). This is less than half the flows shown in Figure 5, during the City's last significant flood, when releases at Shasta Dam reached 186,000 cfs before maximum discharges were regulated to 83,000 cfs in 1943 (USGS, 2023).

2.5.2 Pump Station and Ancillary Facilities

From the intake, raw water would be pumped using five 900-HP can-type, vertical turbine pumps with electric motors powered by variable-frequency drives (VFDs). One of these pumps would be for standby.

The pumps, along with an electrical room and staff restroom, would be housed in an approximate 4,000-square-foot pump station building. Ancillary systems, including seal water supply booster pumps, hoisting equipment, heating and air conditioning, and hydraulic surge protection equipment would also be housed within the building. A vertical surge tank would be located outside the building on a concrete pad. The foundation of the building and concrete pads would be set at least 2 feet above the 100-year flood elevation, as required by *California Code of Regulations*, Title 23, Water Requirements.

To accommodate the footprint of the new intake and pump station, sheet-pile walls would be installed within the Sacramento River, and fill material would be placed between the existing bank and the new sheet-pile walls to create the project site. The site would extend approximately 70 feet from the edge of the existing trail into the Sacramento River. The location of the pump station building would also require approximately 600 feet of the existing River Trail to be realigned to the south.

Raw water would be pumped from the new pump station and connect into the existing raw water conveyance infrastructure within the River Trail and, ultimately, to FWTP, through a 42-inch-diameter raw water pipeline, described in Section 2.6.1.2.

A surge tank would be constructed on a cast-in-place concrete foundation. The foundation would be designed to resist static and dynamic loads applied from the surge tank.

The electrical room in the pump station building would include a switchgear, VFDs, transformers, meters, and arc-resistant equipment, as well as instrumentation and controls, such as, supervisory control and data acquisition (SCADA) equipment. A radio communications tower would also be provided on the site.

Additional facilities at the pump station site would include buried and exposed piping, including check and isolation valves for pumps, flow meters, a discharge flow bypass system, and conveyance piping from the new pump station to the point of connection with existing piping.

2.5.3 Existing PS1 Demolition

Once the new PS1 has been commissioned, the existing pumping plant and intake structure (Figure 6) would be demolished. The pumps and electrical equipment would first be removed, and then the concrete structure would be demolished and removed from within the OHWM. The existing pump station building adjacent to the River Trail may also be demolished. However, the City's Parks Department may elect to repurpose the structure for recreational purposes. This would be determined during final design. The intake site, including riparian area, would be restored using engineered stabilization measures, such as riprap, as appropriate, and planting of native species. If the City demolishes the pump station building, the disturbed area would be also be revegetated with native species.



Figure 6. Riverside Aerial Photo of Existing PS1

2.5.4 Access Road

To access the project area, an existing recreation connector trail between Overhill Drive and the River Trail, with the connection directly adjacent to PS1, would be improved to a 14-foot-wide paved maintenance access road with 2-foot-wide aggregate base on each side for a total width of 18 feet. This new access road would provide primary construction and maintenance access to the project site and continue to be used as a public trail connection for the Overhill Drive and Mary Street neighborhoods. Street lights would be installed along the roadway during construction and maintained during operation.

The existing recreation connector trail between Overhill Drive and the River Trail has three staircases, each going up and over an existing, abandoned railroad grade that formerly provided rail service for the Southern Pacific Railroad (now Union Pacific Railroad). The property is now owned by the Reclamation. The new access road would cross the existing railroad grade, and an easement through the property would be required. The railroad tracks and ties were removed long ago, and it has not served as an operational rail line for decades.

As shown on Figure 4, near the intersection with the existing railroad grade, the access road would split into two routes to provide through access to the site. The West Access route is a longer route that closely follows the existing connector trail and enters the proposed site at the western end. The profile grade for this route would be no greater than 5% from this connection point to provide an Americans with Disabilities Act (ADA)-accessible route to the River Trail. The East Access route is a spur from the West Access route with a site entrance at the eastern end of the proposed site. The East Access spur would not exceed 10% grade. In addition to maintaining the maximum preferred allowable grade of 10%, or 5% on the portion of the West Access route that would provide ADA access to the River Trail, both routes assume a 15-mile-per-hour design speed and oversized vehicles for turning movements.

Due to the topography along the access road, extensive cut and fills and retaining walls or cut slopes up to 30 feet high would be required. However, although the total project fills are expected to exceed the cuts, some material would need to be temporarily stockpiled onsite during construction of the access road prior to the cofferdam being ready for backfill.

2.5.5 Jenny Creek Restoration

Jenny Creek is a tributary to the Sacramento River, and the proposed location of the new PS1 would be near the confluence of the two waterways. Jenny Creek was cut off by the railroad grade and put into culverts to allow for railroad construction in the 1800s. At present, Jenny Creek is discharged into the Sacramento River through two approximate 145-foot-long, 60-inch-diameter parallel corrugated metal pipe (CMP) culverts (Figure 7). When the ACID flashboards are in the river, the culverts terminate at approximately the WSE. However, when the flashboards are removed, the WSE is several feet below the downstream end of the culverts, preventing any upstream migration into Jenny Creek. Finally, the culverts are beyond their useful life, with the bottom of both culverts degraded to such an extent that much of the flow from Jenny Creek discharges into the river from below the culverts rather than through them. Because of these deficiencies, restoration is required.



Figure 7. Existing Jenny Creek Culvert Discharge

Although the project objectives could be achieved by removing the existing culverts and installing new culverts at a lower elevation, the City has elected to restore Jenny Creek as an open-channel creek along its believed historical alignment to provide additional public and environmental benefits. This new alignment would have a gradient of 2.4% at the confluence with the Sacramento River. This gradient is similar to that of the existing CMP culverts, which have slopes of 1.9% and 2.7% for the western and eastern culverts, respectively. This low grade would make Jenny Creek accessible from the Sacramento River and could provide upstream spawning and rearing habitat for salmonids while also potentially improving water quality, other wildlife habitat, and ecosystem function. The proposed alignment of the restored Jenny Creek is shown on Figure 4. The alignment is currently at 30% design and may undergo minor changes during final design.

With Jenny Creek restored as an open channel, two new bridges over the creek would be required. The first bridge would be along the River Trail, east of PS1. This bridge would be designed to carry light maintenance vehicles (AASHTO H10 design load) or a 90-pound-per-square-foot (psf) pedestrian live load. The second bridge would accommodate the main access road connecting PS1 to Mary Street/ Overhill Drive, which would be used during construction and for future maintenance and inspections. This bridge would be designed to carry the anticipated construction vehicles, large travel cranes, and future equipment-hauling vehicles as well as current AASHTO design vehicle HL-93 and a California Department of Transportation permit P15 truck.

The bridges would be precast concrete arch bridges supported on conventional concrete spread footings. The bridges would be able to accommodate the anticipated utilities. The River Trail bridge may have pedestrian rails, similar to the other River Trail bridges, whereas the access road bridge would have vehicular rating barrier rails.

2.5.6 Public Restroom and Utilities

A new public restroom would be constructed on the southern side of the River Trail across from the PS1 building in a new prefabricated building. To service both the PS1 staff restroom and the public restroom, a new wastewater lift station would be installed on the project site, with a grinder installed upstream of the lift station to minimize maintenance needs and potential service disruptions due to disposal of items that the new pumps would be incapable of processing. The lift station would pump wastewater approximately 800 linear feet and 35 vertical feet through a new 4-inch-diameter force main to the City's existing wastewater system immediately upstream of the City's existing Mary Street Wastewater Lift Station, located at Mary Street and Overhill Drive.

A new 8-inch-diameter potable water line to serve PS1 and the public restroom would be installed, extending 1,100 linear feet from Mary Street to the project site. This new potable water line would be installed within the new access road, parallel to the new 4-inch-diameter force main with at least 10 feet of horizontal clearance, and connect to an existing 8-inch-diameter line within Overhill Drive.

Redding Electric Utility (REU) underground conduits would be routed to PS1 from two locations: within the new access road and from an REU vault near the existing PS1 to the new PS1. Two 6-inch-diameter and one 4-inch-diameter conduits would be installed in the new access road, and a 6-inch-diameter conduit would be installed from the existing PS1 to the new PS1 in the River Trail. The 4-inch-diameter conduit would be for access road lighting, and the 6-inch-diameter conduit would be for operation of all other facilities at PS1.

Finally, a new 4-inch-diameter conduit and 1-inch-diameter conduit would also be routed within the new access road from Overhill Drive to connect into an existing AT&T fiber optic line. One new 4-inch-diameter fiber optic line in the River Trail would connect into the existing pump station source. All new conduits would be underground.

2.5.7 Site Security

The project site would be enclosed within an 8-foot-high metal security fence without privacy screens. Access to the interior of the security fence would be provided by 24-foot-wide cantilever slide vehicle gates at both ends of the site.

2.6 Project Construction

The project is expected to begin construction in 2025 and span 24 months, being completed in 2027. In-water construction activities are assumed to be limited to February 1 to April 15 each calendar year, pending coordination with multiple regulatory agencies. It is assumed that all work would be conducted Monday through Friday, within a normal 8-hour shift between 7 a.m. and 7 p.m.; and no construction activities would occur during the evening or weekends without prior approval by the City.

Construction of the proposed project would require intermittent closure of the River Trail. These closures would last no longer than 30 days in duration at any one time. During these closures, recreators would be detoured around the project site to allow continued through access to the River Trail around areas where active work activities are being performed. When the River Trail is not closed, the contractor would take precautions, including delineating work areas, using a temporary crosswalk, and using flaggers, to minimize risk of injury to recreators.

2.6.1 Construction Sequencing

The construction activities required to complete the project are presented in Sections 2.6.1.1 through 2.6.1.4.

2.6.1.1 Sites Access Road

To provide access to the new PS1 location, first, the access road would need to be constructed. The proposed access road would be used through the duration of construction and operations and would follow, to the extent practicable, the existing recreation connector trail. Once best management practices (BMPs), in compliance with the SWPPP, are installed, construction of the route would first entail clearing and grubbing along both sides of the existing trail, from Overhill Drive to the bottom of the southern set of stairs. The finished roadway would be 14 feet wide, but an additional 2 feet on each side would be cleared to provide a shoulder along the single-lane route, for a total corridor width of 18 feet. The 14-foot-wide roadway would be overlaid with road base during construction.

After the route to the earthen embankment on which the abandoned railroad is located has been cleared, both sets of stairs and approximately 325 linear feet of the embankment would be removed. Removal would result in the cut of approximately 8,600 cubic yards (CY) of material. The embankment would be cut to approximately 3 feet above the existing culverts, and the culverts would remain in-place during construction to allow through-access. After both sets of stairs have been removed, the remaining area between the Jenny Creek basin and the River Trail would be cleared along both the western and eastern access routes. Haul trucks would transport and stage removed earthen material (spoils) to Overhill Drive staging area for future project use.

In total, construction of the access routes would require the removal of 104 trees with a diameter at breast height (DBH) of 6 inches or greater; however, the distribution of native and nonnative species and trees located within the riparian zone is yet to be determined by a certified arborist. Although trees removed from publicly owned property are exempt from the City's Tree Management zoning ordinance (RMC 18.45.040D), the City has designed the project to minimize the removal of trees to the extent practicable.

2.6.1.2 Intake and Pump Station Installation

Once the access road to the PS1 site has been established, activities to support construction of the intake and pump station would commence. First, turbidity monitors would be installed upstream and downstream of the project site so that localized turbidity could be monitored during in-water work activities. Additional sediment control devices would be installed if turbidity exceeds thresholds established by RWQCB prior to construction.

After turbidity monitors have been installed, it is expected that a 275-ton crawler crane, supported by an additional 90-ton crane, would be mobilized to the site using the new access road. First, an approximate 390-foot-long sheet-pile wall would be installed to construct the cofferdam, which would provide a dewatered area to isolate the construction work from the Sacramento River. This would require the installation of approximately 167 heavy-duty sheet piles.

Because of the geological conditions in the project area, which include clay, clayey sand, and clayey gravel in the shallow subsurface area underlain by cemented silty sand and dense gravels (Jacobs 2023), the sheet piles may require predrilling with an auger at each sheet pile interlock to facilitate driving the piles. Predrilling with the auger loosens the soil, and the auger is reversed to back out without removing the soil. The piles would likely first be driven with a vibratory hammer until refusal and completed with a diesel hammer. It is anticipated that pile-driving activities would require a total of 20 hours of run time for the vibratory hammer and an additional 20 hours of run time for the diesel hammer, spread over 6 weeks. The pile hammers would have a minimum rated energy of 40,000 foot-pounds. If deemed appropriate by NMFS, the contractor will use bubble curtains during pile driving to attenuate hydroacoustic impacts to fish. After completion of the perimeter wall, a fish salvage operation would be completed. Fish entrained within the cofferdam perimeter wall would be captured, removed, and relocated outside the cofferdam by a qualified biologist in accordance with a NMFS-approved Fish Rescue Plan.

After the fish rescue is complete, the cofferdam would be fully dewatered. An existing, abandoned railroad concrete box structure within the cofferdam footprint would be demolished and removed. An additional 30 sheet piles would be installed to create a box around the intake structure. The bottom grade of the intake structure cofferdam would be covered with a concrete "rat slab," then structurally reinforced concrete would be poured to form the foundation of the structure The 42-inch-diameter raw water pipeline would be installed behind the cofferdam wall to the northern edge of the River Trail, along with inlet piping, pump cans, and manifold. The remainder of the cofferdam area would be filled using a combination of select granular fill and spoils from construction of the access road. The stockpiled earthen materials would be transported from the staging area on Overhill Drive to the PS1 site using haul trucks and placed as fill. A total of 2,500 CY of earthen material would be needed to fill the cofferdam, which would be topped by aggregate road base and paved.

Once the intake structure is complete, the 4,000-square-foot pumping plant building would be constructed atop the structure. As discussed under Section 2.5.2, this building would house all of the electrical and instrumentation and controls equipment, as well as an employee restroom.

2.6.1.3 Jenny Creek Realignment and Ancillary Facilities

The new wastewater lift station, 8-inch-diameter wastewater and 4-inch-diameter potable water lines would be installed at the location of the new public restroom on the southern side of the River Trail. The 186-square-foot prefabricated structure would be installed for the new public restroom.

A total of approximately 600 feet of River Trail pavement would be demolished and relocated slightly south to accommodate the PS1 and the associated utilities. This includes installation of the 42-inch-diameter raw water pipeline and the new wastewater and potable water lines that would continue south from PS1 and the public restroom. Then restoration of Jenny Creek would commence. To avoid impacts to water quality, a temporary collection sump would be installed in Jenny Creek, upstream of the existing culvert headwall; and then temporary bypass piping would connect from the sump to the Sacramento River to divert flows during construction. The remaining earthen material atop the existing culverts would be removed, and the culverts would be demolished. This would allow the 42-inch-diameter raw water piping, as well as the wastewater and potable water lines, to be installed under the crossing with Jenny Creek.

The proposed creek alignment, as shown on Figure 4, would include an additional approximate 100 linear feet of cut into the Reclamation-abandoned railroad grade, and the new creek alignment would need additional cut. In total, approximately 7,400 CY of material would be excavated along the Jenny Creek alignment. Once the Jenny Creek alignment is constructed, two prefabricated concrete arch bridges would be installed over the creek, as shown on Figure 4 and described in Section 2.5.5. The southernmost bridge, which would span approximately 45 feet along the access road, would be installed first, and then another 45-foot bridge would be installed along the River Trail. As noted in Section 2.5.5, these bridges would be prefabricated concrete arches, and they would likely be installed using the 90-ton crane used during construction of the intake and pump station. The River Trail would be repaved, and appurtenances would be installed. To complete restoration of the new open channel Jenny Creek, a combination of large woody material and engineered fill, such as, riprap, would provide stability and prevent erosion along the banks of the new creek alignment while also providing habitat for juvenile salmonids. Planting of native riparian species would occur along the banks of the new creek channel. Once complete, the sump and temporary bypass would be removed, and Jenny Creek would begin flowing through the new channel.

To complete construction in this area of the project, the raw water, wastewater, and potable water lines, as well as three conduits—two for electricity and one for fiber optic cable—would be installed within the new access road to Overhill Drive where all three lines would tie into existing City-owned water and electrical infrastructure and privately owned communications infrastructure (Section 2.5.6). The route would be paved with 12-foot-wide asphalt once utilities are installed. Native plants would be planted in the disturbed area outside the roadway, and BMPs would be removed. During these construction activities, access to the River Trail through this trail would be closed intermittently. Additionally, a separate electrical conduit from the existing PS1 to the new PS1 location would be installed. This would require open trenching within the River Trail, which would require temporary closure of the trail.

Upon completion of the new PS1, the facilities would undergo startup and commissioning. Once the new infrastructure is online, demolition of the existing PS1 would commence.

2.6.1.4 Existing PS1 Demolition

Demolition of the existing PS1 would require closure of the River Trail between the existing PS1 and the South Diestlehorst Bridge Trailhead for up to 30 days, because the River Trail would be used as the access road for all materials and equipment entering and leaving the site. First, temporary sediment controls would be installed in a perimeter around the existing PS1 structure to minimize water quality impacts during demolition. Once installed, the pumps would be removed, the existing concrete structure would be wire-sawed, and the remainder of the structure would be demolished and removed from the site for disposal. Riprap would be placed along the floor of the cofferdam to prevent sedimentation and erosion after removal, and the sediment controls would be removed. If the City chooses to demolish the existing pump station building, it would also be demolished at this time, and the disturbed area would be vegetated with native species. River Trail access would be restored upon completion of restoration activities.

2.6.2 Staging Areas

The project would entail multiple staging areas, as shown on Figure 8. Throughout construction of the access road and PS1, it is anticipated that materials and equipment would be staged in Staging Area 1 on Overhill Drive. Once the access road has been completed, additional materials and equipment would be staged in Staging Area 2 adjacent to the new PS1 site. During demolition of the existing PS1 and throughout the duration of project construction, Staging Areas 3, 4, and 5 off Benton Drive would be used for excess materials and equipment; and additional staging would occur on either side of the existing PS1, in Staging Area 6 and 7.



Figure 8. Staging Areas

2.6.3 Excavated and Borrow Material

Construction of the entire project would require a total cut of approximately 16,500 CY of earthen material. However, 10,600 CY of fill material is required to construct the project. Therefore, all excavated material that is confirmed to be nonhazardous and suitable for fill would be repurposed onsite. Excavated material would first be tested, and contaminated soil would be disposed of in accordance with state and federal regulations. Soil that is confirmed to not be hazardous would be stockpiled on Overhill Drive and reused when fill is required. It is assumed that 60% of the excavated material construction debris would be of suitable material to be reused. Remaining construction waste would be disposed of at an appropriate licensed facility. Based on the assumption that only 60% could be reused, an additional approximate 700 CY of fill is estimated to be required to complete the project. The contractor would procure clean, certified weed-free fill material. This is assumed to be sourced from within or near the City of Shasta Lake.

2.7 Construction Impacts Summary

As discussed under Section 2.6.1.2, construction of the intake and pumping plant is estimated to require a combined total of 40 hours of active run time for the vibratory hammer and diesel hammers, spread over 6 weeks. To minimize risk of acoustic impact to listed and otherwise sensitive fish species, in-water work would only occur during the in-water work window (February 1 to April 15) when populations of sensitive fish species are at their annual lowest levels.

Installation of sheet piles at the project site are expected to exceed the peak and cumulative thresholds for injury to fish over a portion of the channel width. The threshold for behavioral changes, but not injury, would be exceeded over the entire channel width when piles are set and proofed using an impact hammer. Use of a vibratory driver for installation of pipe piles would exceed the injury threshold. Because the sheet piles would be predrilled, overall drive time is expected to be reduced to about 11 minutes per sheet pile. The exposure period to impact driving is expected to be approximately 4 minutes per pile followed by an additional 7 minutes of vibratory installation. There will be a break after installation of each sheet pile as the drivers are moved to the next sheet pile. Installation of the 167 sheet piles would be spread across 4 weeks.

After the sheet pile wall has been installed and the area behind the wall has been dewatered and graded, an additional 28 H-piles would be installed to support the foundation of the pump station building. It is anticipated that these piles would not be predrilled and would be installed via impact pile driving using a diesel hammer. These would be expected to require approximately 1 hour of intermittent pile driving per pile; however, only an average of 20 minutes of that time would entail active impact driving. The installation of the H piles would be spread across 2 weeks. Because the H piles would be installed behind the sheet-pile wall, installation could occur outside the in-water work window if needed.

The brevity of drive time and breaks in sound production would help minimize adverse effects. A complete analysis of potential impacts to fisheries will be presented in the BA (currently being prepared) and will be reviewed under Section 7 consultation between USACE and NMFS.

2.7.1 Streambank Riprap and Vegetation Removal

Existing concrete debris and minimal vegetation removal will be required along the bank. Concrete debris from the concrete box structure at Jenny Creek and the existing PS1 will be removed and disposed of by the contractor. Vegetation along the Sacramento River will be cut to ground level and removed to allow for construction installation activities. Large trees within the project site that do not require removal would be marked and protected to the extent feasible.

2.7.2 Water Quality

Changes in water quality have the potential to affect listed species of fish. The main avenues of impact are from loosening of sediment accumulated on the bed of the Sacramento River during pile-driving activities. These impacts would be minimized through the installation of sediment-control devices. Additional potential impacts to water quality could occur through accidental spills, such as fuel, oil, or other chemicals, during construction activities; erosion of exposed soils along the riverbank; or release of concrete slurry. In accordance with the RWQCB Section 401 Clean Water Act certification requirements and the NPDES permitting process, avoidance and minimization activities would be installed and monitored as documented in the SWPPP to be prepared by the contractor prior to the start of any construction activities.

2.7.3 Operation and Maintenance

Day-to-day operation of the project would generally resemble current operations. Project operations would primarily include operation of the new 900-HP pumps (four duty pumps with one standby pump) and the fish screens. The fish screen would have two independent cylindrical screens that rotate against brushes to remove debris from the screen. The frequency with which these cleanings would occur would vary based on the volume of water being diverted and in-river conditions; however, it could be as frequently as twice per day; these cleanings would occur under the surface of the Sacramento River. Each screen would have an individual submersible motor with leak detection and a thermal switch. A rotation switch for each screen would provide positive verification that each motor is rotating the respective screen. The screens are lowered into position at the docking inlet along vertical tracks. An electric hoist would be installed on the structure to raise and lower the screen. The screens would be raised to the pump platform for maintenance and inspection.

Additional operations of the project would include use of new onsite electrical and water and wastewater infrastructure, as needed, at the pump station building, including the employee restroom and the public restroom. As noted in Section 2.5.6 the new lift station serving the restrooms would include an in-line grinder that would be in operation when wastewater is conveyed to the lift station. Maintenance of both facilities would include removal of blockages, as needed, and routine cleaning.

The City would conduct routine checking and periodic maintenance of the intake and pump station. Maintenance is anticipated to be minimal because of the self-cleaning nature of the fish screens; however, City staff may need to remove impinged debris occasionally and following a high-water release condition from Keswick Dam. Sediment jetting may also be incorporated inside the screen to minimize operational challenges and maintenance. Sediment loading is not anticipated to be high in this location on the Sacramento River. If a significant pump removal is required, the City would use the new access from Overhill Drive to the top of the pumping plant and use a crane to extract larger equipment that could then be hauled elsewhere onsite or offsite via truck for repairs.

3. References

California Department of Fish and Game (CDFG). 2010. *California Salmonid Stream Habitat Restoration Manual, Fourth Edition*. Appendix S – Fish Screen Criteria. July.

CH2M HILL. 2002. Draft Feasibility Study for the City of Redding Pump House No. 1 Fish Protection Project. February.

City of Redding. 2023. Local Hazard Mitigation Plan 2022-2027. February 13.

Federal Emergency Management Agency (FEMA). 2021. *Flood Insurance Study for Shasta County, California*. December 16.

Jacobs. 2022. Final Preliminary Design Report, City of Redding Pump Station 1 Replacement Project. July.

Jacobs. 2023. 30% Project Design Report, City of Redding Pump Station 1 Replacement Project. October.

National Marine Fisheries Service (NMFS). 2009. *Biological Opinion and Conference Opinion on the Long-Term Operations of the Central Valley Project and State Water Project.* June 4.

National Marine Fisheries Service (NMFS). 2022. NOAA Fisheries West Coast Region Anadromous Salmonid Passage Design Manual. June. <u>https://media.fisheries.noaa.gov/2022-02/nmfs-biological-conference-opinion-long-term-operations-cvp-swp.pdf</u>.

U.S. Geological Survey (USGS). 2024. Water-Year Summary for Site 11370500. Available online at <u>https://waterdata.usgs.gov/nwis/wys_rpt/?site_no=11370500</u>. Accessed January 5, 2024.

Attachment 2 CEQA Environmental Checklist

APPENDIX G: ENVIRONMENTAL CHECKLIST FORM

NOTE: The following is a sample form that may be tailored to satisfy individual agencies' needs and project circumstances. It may be used to meet the requirements for an initial study when the criteria set forth in CEQA Guidelines have been met. Substantial evidence of potential impacts that are not listed on this form must also be considered. The sample questions in this form are intended to encourage thoughtful assessment of impacts, and do not necessarily represent thresholds of significance.

- 1. Project title: City of Redding Pump Station 1 Replacement Project
- 2. Lead agency name and address: City of Redding Department of Public Works - Engineering
- 3. Contact person and phone number: Amber Kelley 530.225.4046
- 4. Project location: Redding, California
- 5. Project sponsor's name and address: City of Redding Department of Public Works – Engineering 777 Cypress Avenue Redding, CA 96001
- 7. Zoning: Open-Space District 6. General plan designation: GWY
- 8. Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.) See attached Project Description
- Surrounding land uses and setting: Briefly describe the project's surroundings: The project is located on the southern bank of the Sacramento River along the Sacramento River Trail (River Trail). Consistent with the land use and zoning designations, the project area is primarily used for recreation. Other land use types adjacent to the project area include Greenway, low-density Residential (less than 10 units per acre), Public Facilities or Institutional, and Parks.
- 10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)

USACE, USFWS, NMFS, Reclamation, SWRCB, SHPO, CDFW, RWQCB, CVFPB, City of Redding

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun? Tribal consultation has been initiated.

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

CEQA Guidelines Appendices

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.

\checkmark	Aesthetics	\checkmark	Agriculture / Forestry Resources	\checkmark	Air Quality
\checkmark	Biological Resources	\checkmark	Cultural Resources	\checkmark	Energy
\checkmark	Geology/Soils	\checkmark	Greenhouse Gas Emissions	\checkmark	Hazards & Hazardous Materials
\checkmark	Hydrology/Water Quality	\checkmark	Land Use / Planning		Mineral Resources
\checkmark	Noise		Population / Housing	\checkmark	Public Services
\checkmark	Recreation	\checkmark	Transportation	\checkmark	Tribal Cultural Resources
\checkmark	Utilities / Service Systems	\checkmark	Wildfire	\checkmark	Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

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

Elle Signature

January 19, 2024 Date ()

EVALUATION OF ENVIRONMENTAL IMPACTS

- 1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors, as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2. All answers must take account of the whole action involved, including off-site as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.
- 5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analyses Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9. The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significance

	Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AE	STHETICS. Except as provided in Public Resou	urces Code Se	ection 21099, wo	uld the project	:
a)	Have a substantial adverse effect on a scenic vista?			\checkmark	
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				\checkmark
c)	In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?		\checkmark		
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?		\checkmark		

- II. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:
- 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?
- b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?
- 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))?

d) e)	Issues Result in the loss of forest land or conversion of forest land to non-forest use? Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. <i>.</i>	AIR QUALITY. Where available, the significa management district or air pollution control determinations. Would the project:	nce criteria e district may	stablished by th be relied upon	ne applicable to make the	air quality following
a)	Conflict with or obstruct implementation of the applicable air quality plan?			\checkmark	\checkmark
b)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?			\checkmark	
c)	Expose sensitive receptors to substantial pollutant concentrations?			\checkmark	
d)	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			\checkmark	
IV. E	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?	\checkmark			
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?		\checkmark		
c)	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			\checkmark	

	leeuee	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No
d)	Interfere substantially with the movement of	impuot	meorporatea	impaot	impaor
~)	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?		\checkmark		
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		\checkmark		
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?			\checkmark	
V. C	ULTURAL RESOURCES. Would the project:				
a)	Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?			\checkmark	
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?			\checkmark	
c)	Disturb any human remains, including those interred outside of dedicated cemeteries?			\checkmark	
VI. E	ENERGY. Would the project:				
a)	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?				\checkmark
b)	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				\checkmark
VII.	GEOLOGY AND SOILS. Would the project:				
a)	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:			\checkmark	

	;)	Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
	1)	Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				
	ii)	Strong seismic ground shaking?			\checkmark	
	iii)	Seismic-related ground failure, including liquefaction?			\checkmark	
	iv)	Landslides?			\checkmark	
b)	Res of to	ult in substantial soil erosion or the loss opsoil?			\checkmark	
c)	Be la unst a res in or subs	ocated on a geologic unit or soil that is table, or that would become unstable as sult of the project, and potentially result n- or off-site landslide, lateral spreading, sidence, liquefaction or collapse?			\checkmark	
d)	Be la Tabl (199 risks	ocated on expansive soil, as defined in le 18-1-B of the Uniform Building Code 94), creating substantial direct or indirect s to life or property?			\checkmark	
e)	Hav supp alter whe disp	e soils incapable of adequately porting the use of septic tanks or rnative waste water disposal systems are sewers are not available for the losal of waste water?				\checkmark
f)	Dire pale geol	ectly or indirectly destroy a unique contological resource or site or unique logic feature?			\checkmark	
VIII.	GRE	ENHOUSE GAS EMISSIONS. Would the	project:			
a)	Gen dire sign	erate greenhouse gas emissions, either ctly or indirectly, that may have a ificant impact on the environment?			\checkmark	
b)	Con regu redu gase	flict with an applicable plan, policy or ulation adopted for the purpose of ucing the emissions of greenhouse es?			\checkmark	

	Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX.	HAZARDS AND HAZARDOUS MATERIALS. W	ould the proie	ct:		
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			\checkmark	
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?			\checkmark	
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			\checkmark	
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				\checkmark
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?			\checkmark	
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			\checkmark	
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			\checkmark	
X. F	IYDROLOGY AND WATER QUALITY. Would the	he project:			
a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			\checkmark	
b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			\checkmark	

		lssues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
C)	Sub patte	stantially alter the existing drainage ern of the site or area, including through alteration of the course of a stream or				
	river surfa	or through the addition of impervious aces, in a manner which would:				
	i)	result in a substantial erosion or siltation on- or off-site;		\checkmark		
	ii)	substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;			\checkmark	
	iii)	create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or			\checkmark	
	iv)	impede or redirect flood flows?			\checkmark	
d)	In flo risk inun	ood hazard, tsunami, or seiche zones, release of pollutants due to project dation?			\checkmark	
e)	Con wate grou	flict with or obstruct implementation of a er quality control plan or sustainable indwater management plan?			\checkmark	
XI. L	AND.	USE AND PLANNING. Would the project	:			
a)	Phys	sically divide an established community?				\checkmark
b)	Cau due polic of av effec	se a significant environmental impact to a conflict with any land use plan, cy, or regulation adopted for the purpose voiding or mitigating an environmental ct?			\checkmark	
XII.	MINE	RAL RESOURCES. Would the project:				
a)	Res mine the r	ult in the loss of availability of a known eral resource that would be a value to region and the residents of the state?				\checkmark
b)	Res impo delir plan	ult in the loss of availability of a locally ortant mineral resource recovery site neated on a local general plan, specific or other land use plan?				\checkmark

	Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII.	NOISE. Would the project result in:				
a)	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	\checkmark			
b)	Generation of excessive groundborne vibration or groundborne noise levels?	\checkmark			
c)	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?			\checkmark	
XIV.	POPULATION AND HOUSING. Would the proj	ect:			
a)	Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				\checkmark
b)	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				\checkmark
XV.	PUBLIC SERVICES. Would the project:				
a)	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:			\checkmark	
	Fire protection?			\checkmark	
	Police protection?				
	Schools?			\checkmark	

	Issues Parks? Other public facilities?	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact Impact	No Impact
XVI	RECREATION.				
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?			\checkmark	
D)	facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?		\checkmark		
XVI	I. TRANSPORTATION. Would the project:				
a)	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			\checkmark	
b)	Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?			\checkmark	
c)	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			\checkmark	
d)	Result in inadequate emergency access?			\checkmark	
XVI	II. TRIBAL CULTURAL RESOURCES.				
a)	Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:			\checkmark	

		Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
	i)	Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or			\checkmark	
	ii)	A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				
XIX.	UTIL	ITIES AND SERVICE SYSTEMS. Would t	he project:			
a)	Request cons wast drain telec cons caus	uire or result in the relocation or truction of new or expanded water, ewater treatment or storm water age, electric power, natural gas, or ommunications facilities, the truction or relocation of which could e significant environmental effects?				
b)	Have serve fores norm	e sufficient water supplies available to the project and reasonably seeable future development during nal, dry and multiple dry years?			\checkmark	
c)	Resu treat serve capa dema com	It in a determination by the waste water ment provider, which serves or may the project that it has adequate city to serve the pr and in ad i ion to the pro ider's e is ing mitments?			\checkmark	
d)	Gene local of loc the a goals	erate solid waste in excess of state or standards, or in excess of the capacity cal infrastructure, or otherwise impair ttainment of solid waste reduction s?			\checkmark	
e)	Com mana regul	ply with federal, state, and local agement and reduction statutes and lations related to solid waste?			\checkmark	

	Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX.	WILDFIRE. If located in or near state responsi severity zones, would the project:	bility areas or	lands classified	as very high f	ire hazard
a)	Substantially impair an adopted emergency response plan or emergency evacuation plan?			\checkmark	
b)	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			\checkmark	
c)	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				
d)	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			\checkmark	
XXI.	MANDATORY FINDINGS OF SIGNIFICANCE				
a)	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				
b)	Does the project have impacts that are individually limited, but cumulatively considerable. Ia ively con iderable" 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.)			✓	

	lssues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			\checkmark	