Yuba City Wastewater Treatment Facility Outfall and Diffuser Project

Environmental Assessment EA 21-04

Initial Study and Mitigated Negative Declaration

January 2022

Contents

Acronyms and Abbreviations

°	degree(s)
2015 Plan	2015 Triennial Air Quality Plan
AB	Assembly Bill
ACLUP	Airport Comprehensive Land Use Plan
APN	Assessor's Parcel Number
AQMD	Air Quality Management District
AT&T	AT&T Communications
BMP	best management practice
Cal-OSHA	California Occupational Safety and Health Administration
CAL FIRE	California Department of Forestry and Fire
Caltrans	California Department of Transportation
CAP	Sutter County Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFP	fully protected
CFR	Code of Federal Regulations
CGS	California Geological Survey
CHRIS	California Historical Resources Information System
City	City of Yuba City
CMU	concrete masonry unit
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO_2	carbon dioxide
CO_2e	CO_2-equivalent
County	Sutter County
CRHR	California Register of Historic Resources
CVFPB	Central Valley Flood Protection Board
CWA	Clean Water Act
DBH	diameter at breast height
DPS	Distinct Population Segment
DTSC	California Department of Toxic Substances Control

DWR	California Department of Water Resources
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
ESU	Evolutionarily Significant Unit
Farmland	Prime Farmland, Unique Farmland, or Farmland of Statewide Importance
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FMMP	Farmland Mapping & Monitoring Program
FP	fully protected
GHG	greenhouse gas
GIS	geographic information system
GPS	global positioning system
HCP	Habitat Conservation Plan
hp	horsepower
IPaC	Information for Planning and Consultation
kV	kilovolt(s)
MBTA	Migratory Bird Treaty Act
mph	mile(s) per hour
MRZ	Mineral Resources Zone
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act
NOAA Fisheries	National Oceanic and Atmospheric Administration – National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOx	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRCS	National Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
NWP	Nationwide Permit
O&M	operations and maintenance
PG&E	Pacific Gas and Electric Company
PM	particulate matter
PM10	particulate matter with aerodynamic diameter equal to or less than 10 microns
PM2.5	particulate matter with aerodynamic diameter equal to or less than 2.5 microns
PRC	Public Resources Code
PRMMP	Paleontological Resource Monitoring and Mitigation Plan
project	Wastewater Treatment Facility Outfall and Diffuser Project

Public Works	City of Yuba City Public Works Department
river	Feather River
ROG	reactive organic gases
ROW	right-of-way
RWQCB	Central Valley Regional Water Quality Control Board
SACOG	Sacramento Area Council of Governments
SRA	shaded riverine aquatic
SSC	species of special concern
SWPPP	stormwater pollution prevention plan
TCP	traffic control plan
TCR	Tribal Cultural Resources
TMDL	total maximum daily load
U.S.	United States
UAIC	United Auburn Indian Community of the Auburn Rancheria
UCMP	University of California Museum of Paleontology
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VHFHSZ	very high fire hazard severity zone
WDR	Waste Discharge Requirement
WEAT	Worker Environmental Awareness Training
WL	watch list
WQBEL	water quality-based effluent limit
WWTF	Wastewater Treatment Facility
yd3	cubic yard(s)

1. Project Description

1.1 Project Title

Wastewater Treatment Facility (WWTF) Outfall and Diffuser Project (project)

1.2 Lead Agency Name and Address

City of Yuba City (City)
Public Works Department (Public Works)
302 Burns Drive
Yuba City, California 95991

1.3 Contact Person and Phone Number

Kevin Bradford
Deputy Public Works Director – Engineering
Phone: 530.822.4786
Email: kbradford@yubacity.net

1.4 Project Location

The project is proposed for the southeastern portion of Yuba City and unincorporated Sutter County. The project area begins in the open space just east of the Shanghai Bend subdivision (39.093998 degrees [°] latitude and -121.601049° longitude) extending south of Levee Road and crossing over existing farmland (39.087128° latitude and -121.603484° longitude) to Garden Highway. The project continues south on Garden Highway, opposite of the Pacific Gas and Electric Company (PG&E) electrical lines, before crossing over private property into the Feather River (Figure 1).

The project is located within the U.S. Geological Survey (USGS) 7.5-minute Olivehurst quadrangle in Township 14 North, Range 03 East, Sections 2 and 11, Mount Diablo Meridian. The Assessor's Parcel Numbers (APNs) associated with the project are:

- 23-040-014
- 23-040-018
- 23-040-019
- 23-040-020
- 23-040-077
- 23-040-078
- 23-103-006
- 23-110-001
- 23-110-002
- 23-110-003
- 23-110-007
- 23-120-023
- 23-120-024
- 23-120-029
- 23-120-032
- 23-120-033
- 23-120-073
- 23-120-074
- 23-130-008
- 23-130-010
- 23-130-023
- 23-130-025
- 23-180-005
- 55-010-019

The project area also includes the WWTF itself (APN 54-010-054) and a small WWTF expansion area (APN 54-010-056).

1.5 General Plan Designation

Sutter County: Parks and Recreation (PR), Agriculture (AG-20), Ranchette (RAN)
Yuba City: Parks, Recreation, and Open Space; Public and Semi-Public; Business, Technology, and Light Industry

1.6 Zoning

Sutter County: Recreation (REC), Agriculture (AG), Ranchette (RAN)
Yuba City: Residential (R-1), Industrial (M-1 and M-2)

1.7 Project Description

The City's existing outfall and diffuser, located at Shanghai Falls, has been damaged; therefore, it has limited discharge capacity. These limitations have required the City to use its existing effluent disposal ponds to dispose of effluent year-round. In response to regulatory orders from the Central Valley Regional Water Quality Control Board (RWQCB), the City is proposing to restore the ability to discharge treated effluent directly to the Feather River by constructing a new outfall and diffuser while maintaining the seasonal function of the effluent disposal ponds. The project would benefit wastewater system operations reliability and safety, allow for normal seasonal maintenance of the effluent ponds, and provide the environmental benefit of enhanced dilutions through the new diffuser. The existing diffuser would be abandoned in place, with the new diffuser located downstream of Shanghai Falls in a stable location in the river that provides deeper water to improve dilution performance, nearshore fish passage, and protection of beneficial uses of the Feather River.

1.7.1 Project Features

The project consists of:

- Modifications to existing effluent pumps at the existing WWTF to accommodate the new, longer outfall pipeline and a new surge control system to be located just south of the existing WWTF effluent pump station
- A bifurcation station and flow meter at the connection to the existing outfall pipeline to send and meter flows to the new outfall or to the disposal ponds
- Approximately 2 miles of new outfall pipeline, beginning at the bifurcation station and ending at the new diffuser
- A vacuum-assisted siphon priming system at the levee crossing, including vacuum primer building, priming valve vault, and primer trap structure
- Diffuser structure consisting of 250 feet of new 36-inch-diameter welded steel pipe buried within the Feather River, with sixteen 12-inch-diameter risers with ports extending above the riverbed
- An access ramp along the Feather River West Levee for use by the construction contractor and as a permanent access for the City
- New power connections to the bifurcation station and vacuum-assisted siphon building
- Acquisition of easements to accommodate these project features on affected properties, as well as temporary construction easements

Figure 2 shows the key project features. Project features are fully shown on the engineering drawings (Appendix A).

1.7.2 Construction

This section discusses the preliminary construction approach that forms the basis for the project area. The considerations discussed in this section are not all-inclusive and may be refined during the final design phase.

In addition to the primary construction approach, general construction considerations include the following:

- Temporary security features and fencing
- Accommodation of ongoing agricultural operations, such as spraying of adjacent fields and operating harvest equipment
- Irrigation of adjacent fields

These considerations would be discussed with landowners during acquisition of permanent and temporary construction easements.

Land-side construction of the outfall pipeline and bifurcation station can be completed concurrently with in-river work, and construction is expected to be completed over approximately 14 months in 2023 and 2024.

1.7.2.1 WWTF Modifications

Modifications will be required at the existing WWTF to provide new effluent pumps capable of pumping the peak design flow to the new diffuser. Existing effluent pumps and discharge piping will be demolished and replaced with new pumps and piping. A new surge control system will be constructed to provide surge protection to the system. The surge tanks will be welded steel pressure vessels installed on concrete foundations just south of the existing treatment plant. A new south sample shed will be added adjacent to the effluent pump station to house effluent sampling analyzer equipment to continually monitor water quality of the finish effluent.

1.7.2.2 Bifurcation Station

The new outfall pipeline would be connected to the existing pipeline at the new bifurcation station. After the new pipeline is installed, it would be connected to the existing pipeline. A temporary bypass of the connection will be installed to facilitate the new pipeline connection. A possible construction scenario to install the temporary bypass is as follows:

- Suspend effluent pumping for 5 to 6 hours starting Sunday morning at 1:30 a.m. to allow time to drain the existing pipe
- Cut out a segment of existing pipe
- Install the bypass

The aboveground station would be enclosed within a 12-foot-tall concrete masonry unit (CMU) building with standing seam metal roofing. Site lighting and security cameras will be included at the building. A gravel access road to the bifurcation station would be installed to easily facilitate operations and maintenance (O&M) access.

1.7.2.3 Outfall Pipeline

The outfall pipeline would be installed using standard, open-trench construction. Depending on the location and on site-specific geotechnical considerations, pipeline construction would involve either a standard trench or vertical trench with shoring as needed (Figure 3). It is anticipated that these two construction approaches will be used in the following areas:

1) The standard trench construction approach would be used where there is enough room and where allowed by geotechnical considerations, primarily along the West Feather River Levee adjacent to the Shanghai Bend subdivision.
2) The vertical trench construction approach would be used where needed to minimize the construction footprint (mostly along Garden Highway) or where required by geotechnical considerations, primarily along Garden Highway south of Stewart Road.

On average, 400 feet of pipe would be installed per day in the open or agricultural land areas where there are few constraints. Along Garden Highway, approximately 100 feet of pipe would be installed per day.

Preliminary meetings with Sutter County (County) Department of Public Works indicate that the contractor will be allowed to perform a full road closure, with detours, for pipeline installation in Garden Highway. The road closure will likely need to be divided into phases, potentially from Stewart Road to Barry Road, and from Barry Road to Oswald Road or Messick Road. Public Works has also indicated that open trenches in Garden Highway are acceptable if secured with steel plates, and potentially longer lengths could be acceptable. County traffic control requirements and maximum lengths of open trench will be further defined as part of the encroachment permit application process prior to construction. Trenching within Garden Highway will be backfilled to limit settlement and the asphalt surface restored to match the original condition. Preliminary meetings with the County indicate that a 2-inch mill and overlay will be incorporated in the pavement restoration from the road centerline to the edge of trench.

1.7.2.4 Levee Crossing and Vacuum-Assisted Siphon Priming System

The outfall pipeline has been designed to cross the Feather River West Levee without affecting its structural integrity. Although the pipeline would be underground, it would extend up and over the recently installed slurry wall buried within

the levee core. The efficiency of effluent flows through the pipeline at the levee crossing would be maintained by installing a vacuum-assisted siphon priming system consisting of three main components:

1) The vacuum priming system, consisting of vacuum pumps mounted on a vacuum receiver tank, would be installed in a small building located on the land side of the levee adjacent to the levee crossing. The vacuum priming building would be a CMU building with standing seam metal roofing and slab-on-grade foundation, with electrical service from the nearby power lines on Garden Highway.
2) A vault containing the priming valves would be installed at the levee crown.
3) A cast in place concrete primer trap structure would be located on the water side of the levee. The primer trap structure will be buried with the top of the structure installed at finish grade and designed for vehicular traffic.

1.7.2.5 Diffuser Construction

The outfall pipeline and diffuser within the Feather River will be constructed during an in-water work period from June 1 through October 31. The recommended approach for construction of the diffuser will include the use of a temporary construction trestle platform to extend materials and equipment out into the river. Preliminary sizing of the trestle is assumed to be 32 feet wide and 270 feet long. The temporary work trestle and platform will be installed with safety lighting, boat routing buoys, and boat passage along the eastern end.

Construction of the river outfall pipeline will involve marine construction, with nearshore work being completed from land and from a temporary work trestle platform extending offshore in the Feather River. Steel sheet piles will be installed into the river shoreline bench and shoreline slope from approximately +50 feet elevation downslope to intersect the river. The sheet pile region will interface with the in-river trestle region. Construction and excavations offshore of the river shoreline will be conducted from the temporary work trestle platform.

The outfall pipeline trench on the river shoreline bench and slope will be excavated to the required depth using either an excavator or clamshell dredge using a specially designed bucket to minimize sediment disruption and protect water quality. Excavated shoreline materials will be stockpiled for use in slope restoration.

Excavation of the outfall trench and placement of the new outfall pipeline in the river will proceed from the shore into the river from the temporary work trestle platform on the upstream side of the trench. Excavated riverbed materials will be stockpiled on the western river bench for temporary storage of approximately 3,100 cubic yards of dredged material. Steel pipe piles will be installed to support the diffuser section of the outfall. Pipe piles will be vibratory-driven in pairs and spaced at about 20 feet on center. A precast concrete pile cap with a saddle to support the outfall pipe will be placed over each pipe pile pair. Once the outfall pipe is in place, it will be connected to the pile cap using a pipe strap bolted onto the pile cap.

The outfall pipe will consist of steel pipe with mechanical couplings. Using mechanical couplings will allow the pipeline to be constructed in segments that can be picked up and lowered into place using a trestle-mounted crane. Divers will help position each stick of pipe, fit it up with the previously installed pipe, and tighten the mechanical couplings to seal the joint. Where diffuser risers extend from the outfall pipe, the 16 diffuser risers and access manhole will be shop-welded to the pipe, tested, and coatings applied in the shop before bringing the segments to the site. The pipe segments with attached diffuser risers will be positioned using cranes and divers in much the same way that standard pipe segments are positioned and joined.

The outfall pipeline trench will be backfilled with granular bedding and pipe zone material. This backfill will transition to 2,500 cubic yards of riprap rock material that will cover the top of the pipeline and slope approximately 3:1, horizontal to vertical, upstream and downstream. Angular stone or riprap placed above the granular backfill will provide protection against erosion that could otherwise expose the outfall pipe. Spoil material from the pipe trench excavation will be placed to backfill the upper portion of the pipeline trench. The native sand will restore the bottom of the river and cover the granular backfill materials. Along the bank, the steel sheet piles will remain in place to protect the pipeline, backfilled with mechanically stabilized earth. Willow cuttings will be added to the exposed soil surfaces in this area. Excess riverbank and riverbed material will be distributed on the river bench within the allowed construction disturbance region, and all disturbed areas will be hydroseeded with native grasses.

Large shoreline marker signs will be installed on steel posts at the top of the western shore bench (7-foot by 8-foot dimensions), and with the bottom of the sign elevated 10 feet above the river bench. Two signs will be used and installed at 45-degree angles to the river shore, one in each direction, to notify river traffic in both directions of the river flow. The signs will have 10-inch-tall lettering stating: "DANGER SUBMERGED PIPELINE ON RIVERBED." The signs will be maintained to inform any river traffic that there are submerged exposed outlets and rock protection that could be a risk to small craft anchors.

1.7.2.6 Levee Access Road

An access ramp will be installed along the Feather River West Levee for use by the construction contractor and will serve as a permanent access for the City. The ramp will originate off Garden Highway just south of Barry Road where Garden Highway begins to diverge from the levee toe. The new access ramp will be secured with a vehicle pipe gate and concrete barriers at the bottom of the ramp.

1.7.3 Staging Areas

The project requires temporary use of additional areas for use by the construction contractor for construction management trailers and contractor management, supervision, and labor vehicles; construction equipment staging; and material storage. To support pipeline construction, staging areas will be available for use on City-owned property near the bifurcation station and on public property along the West Levee. Additional staging will be available near the levee crossing. On the land side of the levee, a temporary construction easement will be acquired from the property owner in the area surrounding the pipeline and vacuum-assisted siphon building. On the water side of the levee, the shelf area between the levee and the Feather River will be used for staging of materials needed for in-water construction (e.g., spoils from dredging, diffuser structure pipe segments, staging of rock materials for backfill).

1.7.4 Operation

Operation of the diffuser is passive, as treated effluent will flow through the diffuser pipe, risers, and elastomeric check valves. Maintenance of the diffuser will require periodic inspections of the riverbed to evaluate bedform scour and deposition in the vicinity of the outfall. This check will confirm that the river bedform changes are not putting the diffuser risers at risk of being buried by sand waves or putting the diffuser pipe rock protection at risk because of bedform scour. These activities are expected to include bathymetric surveys to assess riverbed elevation changes and diver or remotely operated vehicle surveys of the diffuser structure. Maintenance is expected to occur annually for the first 5 years and then every other year afterwards.

1.8 Regulatory Permits

California Environmental Quality Act (CEQA) Responsible Agencies are state or local agencies, other than the Lead Agency, that have discretionary approval authority over a project. This document is intended to support permit issuance and discretionary approvals that might be needed before construction begins from state and local agencies listed in this section as Responsible Agencies.

1.8.1 State

Required state permits are anticipated to include the following:

- **California Department of Fish and Wildlife (CDFW):**
  - **Section 1601 Streambed Alteration Agreement**—This permit is required for potential impacts on the natural flow of a stream and its bed or bank.
  - **Section 2081 Incidental Take Permit**—This permit is required for both spring-run and winter-run Chinook salmon (*Oncorhyncus tshawytscha*), and potentially for giant garter snake (*Thamnophis gigas*), Swainson's hawk *(Buteo swainsoni)*, bank swallow *(Riparia riparia)*, tricolored blackbird (*Agelaius tricolor*), and other state-listed species found within the project area.

- **Central Valley Flood Protection Board (CVFPB)**—A portion of the project will cross the existing West Feather River Levee, requiring an encroachment permit from the CVFPB so that flood protection is not compromised. The encroachment permit will require endorsement from the local entities involved in levee maintenance: Levee District (LD) 1 South and Reclamation District (RD) 784.
- **Central Valley RWQCB**—Results of potential discharge of pollutants into waters of the United States may occur and will need a Clean Water Act (CWA) Section 401 permit. Issuance of the permit by USACE under CWA Section 404 requires a water quality certification issued by the Central Valley RWQCB.
- **California State Lands Commission**—The Feather River's bed is under State Lands Commission jurisdiction; therefore, a Land Use Lease is required.

1.8.2 Federal

Required federal permits are anticipated to include the following:

- **U.S. Army Corps of Engineers (USACE)**
  - **CWA Section 404 Program**—The project will require authorization under the Nationwide Permit (NWP) program. NWP 7, Outfall Structures and Associated Intake Structures, has been approved nationwide and is expected to apply to this project.
  - **Section 408 Program**—The CVFPB will consult with USACE to protect federal flood control interests.
- **U.S. Fish and Wildlife Service (USFWS)**—Federal Endangered Species Act (FESA) compliance may be necessary to minimize potential impacts on the valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) in the project area.
- **National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries)**—The project area contains FESA-listed fish species that may be directly or indirectly impacted by the project and may require additional compliance measures.
- **National Historic Preservation Act (NHPA)**—Section 106 of the NHPA requires federal agencies to consider the effects of proposed federal undertakings on historic properties.
- **U.S. Coast Guard (USCG)**—Placement of any buoys in the Feather River would fall under the Private Aids to Navigation section of the USCG and would require a permit.

1.8.3 Other

Other required permits are anticipated to include the following:

- **County Encroachment Permit**—Construction activities involving the installation of pipelines and facilities in Garden Highway will require an encroachment permit from the County.

2. Environmental Determination

2.1 Environmental Factors Potentially Affected

The following checked environmental factors would be potentially affected by this project; that is, they would involve at least one Potentially Significant Impact, as indicated by the checklist on the following pages.

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

2.2 Determination

On the basis of this initial evaluation:

☐ The Lead Agency finds that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ The Lead Agency finds 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.

☐ The Lead Agency finds that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ The Lead Agency finds 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.

☐ The Lead Agency finds that although the proposed project could have a significant effect on the environment because all potentially significant effects (1) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (2) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

3. Evaluation of Environmental Impacts

3.1 Aesthetics

Aesthetics Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b. Substantially damage scenic resources, including trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c. Substantially degrade the existing visual character or quality public views of the site and its surroundings? (Public views are those that are experienced from a 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?	☐	☐	☒	☐
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	☐	☐	☒	☐

3.1.1 Setting

The project is located primarily in agricultural lands in relatively flat terrain and topography. The project area includes the following elements:

- Earthen levees
- Extensive riparian vegetation
- Unpaved and paved roadways, including Garden Highway
- Orchards, mainly consisting of fruit and nut trees

The project is not in an urbanized area and not subject to Yuba City regulations governing scenic quality. The *Sutter County General Plan Policy Document* (County 2011) has listed the following policies to protect its visual resources:

- *LU 1.16 Views from Rural Roadways and Highways*. Prohibits new projects and activities that would obscure, detract from, or negatively impact the quality of views from the County's rural roadways and highways. Limits offsite advertising along County roadways and highways.
- *LU 1.18 Garden Highway*. Requires that new development along Garden Highway not distract from the quality of views to adjacent agricultural and open space areas and retains a rural character. For the corridor extending north from Highway 99, acknowledge its visual importance as an entry to Yuba City, including consideration of design guidelines and standards as appropriate.
- *ER 7.1 Scenic Resources*. Protects views of Sutter County's unique scenic resources, including the following resources:
  - Sutter Buttes
  - Wildlife and habitat areas
  - Sacramento, Feather, and Bear Rivers
  - Other significant resources

3.1.2 Impact Analysis

a) Would the project have a substantial adverse effect on a scenic vista?

NO IMPACT. No features within the project area are designated as scenic vistas, and nothing within the project area could be characterized as a scenic vista. Therefore, there would be no impact.

b) Would the project substantially damage scenic resources, including trees, rock outcroppings, and historic buildings within a state scenic highway?

NO IMPACT. Garden Highway is a county road and not designated as a state scenic highway by the California Department of Transportation (Caltrans). Therefore, there would be no impact.

c) Would the project substantially degrade the existing visual character or quality public views of the site and its surroundings? (Public views are those that are experienced from a 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?

LESS THAN SIGNIFICANT IMPACT. The project is not in an urbanized area and is not be subject to Yuba City regulations governing scenic quality. Travelers on Garden Highway would not be exposed to any permanent project features; however, travelers on Garden Highway would be exposed to construction activity for approximately 2 months. Each individual driver would only experience a short visual change as they drive by. Boaters on the Feather River would not be exposed to any permanent project features, as the outfall and diffuser structure would be located under water. There would be a minor visual change associated with signage installed around the diffuser structure pursuant to USCG and California Division of Boating and Waterways requirements.

The project aboveground features, such as the vacuum priming system, would be set back approximately 220 feet from Garden Highway and would not be visible from a public vantage point. The bifurcation station would be enclosed in a permanent 10-foot-high concrete structure, with a chain link fence, between the backside of the Shanghai Bend access way and subdivision, and mature trees at the site would be removed for construction of the structure and gravel access road. Recreationists and residents would be exposed to construction activities for approximately 10 days.

Overall, the project would result in minor changes to the existing visual character, with visible project features limited to small utility structures (bifurcation station and vacuum priming system). Therefore, the impact would be less than significant.

d) Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

LESS THAN SIGNIFICANT IMPACT. No permanent lighting would be installed on the vacuum priming system. The weatherproof enclosure would be made of a CMU block structure with wood truss roof and is set back approximately 220 feet from Garden Highway such that there would be no glare impacts. Most construction activities would take place during daylight hours, which would not require temporary lighting. Temporary construction lighting would be installed at the site of the bifurcation station when the new pipeline is attached to the existing pipeline. This activity would be noticeable by approximately 11 residences along Dakota Court and south of Idaho Way. The pipeline connection activity would occur from approximately midnight until 5 a.m. over the course of 1 day (likely a Sunday night).

The bifurcation station is enclosed in a 10-foot-high concrete structure equipped with lighting, security cameras, and an access gate. Immersive riparian vegetation and downward-facing lamps would limit the effect of the concrete structure and potential light pollution to nearby residents and recreationists during daytime or nighttime views. Because of the short duration of this activity and the permanent lighting style of the bifurcation station, the impact would be less than significant.

3.2 Agriculture and Forestry Resources

Agriculture and Forestry Resources Checklist

Would the project:	Potentially Significant Impact	Less Than-Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared with the California Department of Conservation's (CDC's) Farmland Mapping & Monitoring Program (FMMP), to nonagricultural 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 [PRC] Section 12220(g)), timberland [as defined in PRC Section 4526], or timberland zoned Timberland Production [as defined by Government Code Section 51104(g])?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to nonforest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to nonforest use?	☐	☐	☐	☒

3.2.1 Setting

The project area is designated as Agriculture in the *Sutter County General Plan Policy Document* (County 2011) and is zoned Agriculture. According to the FMMP, the project area consists of Prime Farmland and Farmland of Statewide Importance (CDC 2019a). Prime Farmland is defined as the best quality land, growing season, and moisture supply needed to sustain long-term agricultural production. Farmland of Statewide Importance is like Prime Farmland but with minor limitations (CDC 2019b).

The Williamson Act, or California Land Conservation Act (California Government Code Section 51200 et seq.), is designed to preserve agricultural and open space land. It allows private landowners to enroll in contracts that voluntarily restrict land to agricultural and open space uses. In return, Williamson Act parcels receive a lower property tax rate consistent with agricultural and open space use instead of their market rate value. The CDC shows the project is not located on land under a Williamson Act contract (County 2011).

The *Sutter County General Plan Policy Document* contains goals and policies dedicated to preserve agricultural lands so that agriculture remains an essential and sustainable part of the County's future (County 2011). Under the first goal to "…preserve and protect high-quality agricultural lands for long-term agricultural production…," a commitment to discourage agricultural land conversion to other uses will be implemented.

> ***AG 1.5 Agricultural Land Conversion.*** *Discourage the conversion of agricultural land to other uses unless all of the following findings can be made:*
>
> *a. The net community benefit derived from conversion of the land outweighs the need to protect the land for long-term agricultural use*
>
> *b. There are no feasible alternative locations for the proposed use that would appreciably reduce impacts upon agricultural lands*

c. The use will not have significant adverse effects, or can mitigate such effects, upon existing and future adjacent agricultural lands and operations (AG 1-A)

3.2.2 Impact Analysis

a) Would the project convert Farmland, as shown on the maps prepared with the CDC's FMMP to nonagricultural use?

LESS THAN SIGNIFICANT IMPACT. The project would convert Prime Farmland (orchard) on the Yokohari property, which is located on the landside of the levee crossing. Less than 0.1 acres of Prime Farmland would be used for the vacuum priming system. In addition, the pipeline easement in this area would prevent orchard trees from being replanted on approximately 0.9 acres of Prime Farmland along the levee toe. Other farmland impacts would be temporary and would occur along the edge of Garden Highway or within existing easements along the levee toe.

As policy *AG 1.5 Agricultural Land Conversion* states, the overall community benefit from a project can outweigh the need to protect the affected land for long-term agricultural use. In this case, while the project would result in a loss of about 1 acre of agricultural lands, the loss is small and project's net community benefit would compensate for the loss of agricultural use. Therefore, the impact would be less than significant.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

LESS THAN SIGNIFICANT IMPACT. The project site is designated as Agricultural by the *Sutter County General Plan Policy Document* (County 2011). As mentioned above, there would be a temporary and permanent conversion of agricultural lands to other uses, but the net community benefit would outweigh the need for protection consistent with policy *AG 1.5 Agricultural Land Conversion* listed in the General Plan. Approximately 15% of the County's agricultural lands are protected under Williamson Act contracts; however, there are no Williamson Act contract properties within the project area (County 2011). Therefore, impacts would be less than significant.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 1220(g)) or timberland (as defined in PRC Section 4526)?

NO IMPACT. The project area is not zoned for forest land or timberland use. Therefore, there would be no impact on any forest or timber resources.

d) Would the project result in the loss of forest land or conversion of forest land to nonforest use?

NO IMPACT. No forest land is present in the project area or in the project vicinity. Therefore, there would be no impact on forest resources.

e) Would the project involve other changes in the existing environment that, due to their location or nature, could result in the conversion of Farmland to nonagricultural use?

NO IMPACT. The project would not involve other changes that could convert farmland to nonagricultural use. Therefore, there would be no other impact on any agricultural and farming resources.

3.3 Air Quality

Air Quality Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b. Result in a cumulatively considerable net increase in any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

3.3.1 Setting

The project area is located within the Sacramento Valley Air Basin. Air pollutants with national air quality standards, known as Criteria Air Pollutants, include:

- Ozone
- Carbon monoxide
- Nitrogen dioxide
- Sulfur dioxide
- Particulate matter (PM)

Under federal standards, Sutter County is designated as attainment for ozone and PM with aerodynamic diameter equal to or less than 2.5 microns ($PM_{2.5}$) (Feather River Air Quality Management District [AQMD] 2015). Under state standards, Sutter County is designated as nonattainment for ozone, particulate matter with aerodynamic diameter equal to or less than 10 microns (PM_{10}), and attainment for $PM_{2.5}$ (Feather River AQMD 2015). Sutter County is designated as attainment/unclassified for all other pollutants.

The Feather River AQMD controls local, state, and federal air quality management programs for both the Yuba and Sutter counties. The AQMD adopted the *2015 Triennial Air Quality Plan* (2015 Plan) on December 7, 2015 (Sacramento Valley Air Quality Engineering and Enforcement Professionals 2015). The 2015 Plan provides a regional strategy to protect public health by reducing emissions of ozone precursors, nitrogen oxides (NOx), and reactive organic gases (ROG) (Sacramento Valley Air Quality Engineering and Enforcement Professionals 2015).

Construction activities could generate air pollutants that degrade air quality and temporarily increase local human exposure to air contaminants. The AQMD has a list of Standard Project Conditions that would be implemented throughout construction activities, including a comprehensive inventory list of equipment being used and a plan to reduce emissions during construction that would be submitted prior to the start of construction (Feather River AQMD 2016).

3.3.2 Impact Analysis

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

NO IMPACT. The Feather River AQMD developed Indirect Source Review Guidelines to help local agencies estimate project air pollutant emissions and an amendment to the guidelines was adopted on June 7, 2010. The Indirect Source Review Guidelines mainly focus on transportation projects and new residential and industrial projects

(FRAQMD 2010). This project is a wastewater outfall and diffuser project; therefore, it would not conflict with the applicable air quality plan.

b) Would the project result in cumulatively considerable net increase of criteria pollutant for which the project region is non-attainment under the applicable federal or state ambient air quality standard?

LESS THAN SIGNIFICANT IMPACT. Constructing the project would temporarily increase ambient air pollutant concentrations through tailpipe emissions and dust entrainment from construction vehicles and equipment, which could affect nearby residents. The northern part of the project area is adjacent to homes on Dakota Court and near homes on Oregon Way, Eureka Drive, and Idaho Way. A total of 15 houses are within 50 feet of the construction site. In addition, construction activities would occur near 10 homes along Garden Highway.

The Feather River AQMD requires that a fugitive dust control plan be prepared for all construction activity as a standard practice. Implementation of the fugitive dust control plan would reduce these temporary impacts to a less than significant level. The contractor will develop a plan that describes the following requirements:

1) Properly tune and maintain all construction equipment prior to and for the duration of onsite operation.
2) Use existing power sources or clean fuel generators rather than temporary power generators.
3) Develop a traffic plan to achieve the following goals:
    - Minimize traffic flow interference from construction activities.
    - Provide advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service.
    - Schedule operations affecting traffic for off-peak hours.
    - Minimize obstruction of through-traffic lanes.
    - Provide a flag person to guide traffic properly and support safety at construction sites.
4) Suspend all grading operations on a project when winds exceed 20 miles per hour (mph) or when winds carry dust beyond the property line despite implementation of all feasible dust control measures.
5) Water work areas or treat them with dust suppressants as necessary to prevent fugitive dust violations.
6) Make an operational water truck available at all times. Apply water to control dust as needed to prevent visible emissions violations and offsite dust impacts. Travel time to water sources should be considered and additional trucks used if needed.
7) Cover onsite dirt piles or other stockpiled material, install wind breaks, and employ water and soil stabilizers to reduce wind-blown dust emissions. Incorporate the use of approved nontoxic soil stabilizers according to manufacturer's specifications to all inactive construction areas.
8) Operate all transfer processes involving a free fall of soil or other PM in such a manner as to minimize the free fall distance and fugitive dust emissions.
9) Apply approved chemical soil stabilizers according to the manufacturers' specifications to all inactive construction areas (previously graded areas that remain inactive for 96 hours), including unpaved roads and employee and equipment parking areas.
10) To prevent track-out, install wheel washers where project vehicles and equipment exit onto paved streets from unpaved roads. Wash vehicles and equipment prior to each trip. Alternatively, install a gravel bed as appropriate at vehicle and equipment site exits to effectively remove soil buildup on tires and tracks to prevent or diminish track-out.
11) Sweep paved streets frequently (water sweeper with reclaimed water recommended; wet broom) if soil material has been carried onto adjacent paved, public thoroughfares from the project area.
12) Provide temporary traffic control as needed during all phases of construction to improve traffic flow, as deemed appropriate by Public Works and Caltrans and to reduce vehicle dust emissions.

13) Reduce traffic speeds on all unpaved surfaces to 15 mph or less and reduce unnecessary vehicle traffic by restricting access. Provide appropriate training, onsite enforcement, and signage.

14) Re-establish ground cover on the construction site as soon as possible and prior to final occupancy, through seeding and watering.

15) Assemble a comprehensive inventory list (that is, make, model, engine year, horsepower [hp], emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 hp and greater) that will be used an aggregate of 40 or more hours for the construction project, and apply the following mitigation measures:

- The project will provide a plan for approval by the AQMD demonstrating that the heavy-duty (greater than or equal to 50 hp), off-road equipment to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project-wide fleet-average 5% ROG reduction, 20% NOx reduction, and 45% particulate reduction compared to the most recent California Air Resources Board (CARB) fleet average at the time of construction.
- Acceptable options for reducing emissions may include use of the following:
  - Late model engines (Tier 4)
  - CARB-approved low-emission diesel products
  - Alternative fuels
  - Engine retrofit technology (Carl Moyer Guidelines)
  - Aftertreatment products
  - Voluntary offsite mitigation projects
  - Provision of funds for air district offsite mitigation projects
  - Other options as they become available
- Construction Mitigation Calculator results will be submitted and approved by the Feather River AQMD prior to beginning work. The project will provide a monthly summary of heavy-duty, off-road equipment usage to the AQMD throughout project construction.

16) The Lead Agency may also contribute to AQMD's Off-Site Mitigation Program to reduce project emissions to less than significant. The Lead Agency will need to compile a list of all emission sources and consult with the AQMD staff to implement this mitigation measure. The project will need to track emissions generated from equipment and vehicles throughout the project phase that is estimated to exceed the threshold (for example, if the construction phase exceeds the threshold, then track emissions from off-road, portable, and on-road equipment and vehicles).

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

LESS THAN SIGNIFICANT IMPACT. Although residential areas are adjacent to the project site, construction activities would be temporary. Long-term exposure to diesel PM would not occur. In addition, the Feather River AQMD's list of Standard Project Conditions would be implemented throughout the construction phase (Feather River AQMD 2016). These conditions will minimize exposure of nearby sensitive receptors to construction-related pollutants. Therefore, project impacts would be less than significant.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

LESS THAN SIGNIFICANT IMPACT. The project includes an underground pipeline, including air-relief valves for effective conveyance following standard engineering design practices. The treated effluent flowing through the outfall pipeline would not contain odorous sewer gases (for example, methane) at concentrations that would be noticeable offsite. Because the pipeline would convey treated effluent rather than raw wastewater, there would be no odor concerns or impacts.

This is a wastewater project, and the projected outfall would be installed underground, generating an insignificant amount of air pollution after construction activities are completed. During construction, diesel PM is an issue of

concern because residences are located within 1,000 feet of the project area. However, with implementation of the following Standard Project Conditions for diesel PM, the project would have a less than significant impact:

- Install diesel particulate filters or implement other CARB-verified diesel emission control strategies on all construction equipment to further reduce diesel PM emissions beyond the 45% reduction required by the *Construction Phase Mitigation Measures* (Feather River AQMD 2016).
- Use equipment during times when receptors are not present (for example, when school is not in session or when office buildings are unoccupied).
- Establish staging areas for the construction equipment that are as distant as possible from offsite receptors.
- Establish an electricity supply to the construction site and use electric-powered equipment instead of diesel-powered equipment or generators, when feasible.
- Use haul trucks with on-road engines instead of off-road engines, even for onsite hauling.

3.4 Biological Resources

Biological Resources Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?	☐	☒	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS?	☐	☒	☐	☐
c. Have a substantial adverse effect on state or federally protected wetlands (including marsh, vernal pool, and coastal areas) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f. Conflict with the provisions of an adopted Habitat Conservation Plan (HCP); Natural Community Conservation Plan; or other approved local, regional, or state HCP?	☐	☐	☐	☒

3.4.1 Methodology

3.4.1.1 Literature and Database Reviews

Literature and database reviews were conducted to investigate the potential presence of sensitive resources, special-status species, and critical habitats within the project area. A species is considered special status if it meets at least one of the following criteria:

- Species that are listed, proposed for listing, or are candidates for listing as threatened or endangered under the FESA (Title 50 Code of Federal Regulations Section 17.11, 76 *Federal Register* 66370).
- Species that are listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA) (Fish and Game Code, Sections 2050 et seq., 2062, 2067, and 2068).
- Species listed by CDFW as a species of special concern (SSC), fully protected (CFP), or watch list (WL).
- Species listed by California Native Plant Society (CNPS) with a status of 1 or 2 in the current online version of its Inventory of Rare and Endangered Plants of California (CNPS 2020) as they meet the definition of “rare” or “endangered” under CEQA Guidelines Section 15125 (c), Section 15380, or both.

A list of special-status wildlife and plant species with potential to occur was developed by querying the following databases:

- USFWS's Information for Planning and Consultation (IPaC) database was queried to determine which federally listed species could potentially occur near the project area (USFWS 2020b).
- The California Natural Diversity Database (CNDDB) geographic information system (GIS) database was queried for occurrences of sensitive species within 3 miles of the project area (CDFW 2020).
- The CNPS rare plant database was queried (CNPS 2020) for the following USGS nine quadrangles that directly surround the project:
    1) Sutter
    2) Yuba City
    3) Browns Valley
    4) Olivehurst
    5) Gilsizer Slough
    6) Wheatland
    7) Sutter Causeway
    8) Nicolaus
    9) Sheridan
- NOAA Fisheries California Species List Tool was queried for special-status fish species (NOAA Fisheries 2019).
- The National Wetlands Inventory (NWI) database (USFWS 2020a) and the USGS National Hydrological Dataset (2020) were queried for wetlands analysis and for assessing presence of mapped aquatic resources.

Each species was evaluated to determine its potential to occur within the project area. A species was determined to have potential to occur if a nearby occurrence was on record with CNDDB (CDFW 2020), if its known or expected geographic range includes the project limits or vicinity of the project limits, or if its known or expected habitat is represented within or near the project limits.

3.4.1.2 Field Review

On May 10, 2019, a reconnaissance-level field survey of the diffuser area was performed to identify aquatic and riparian resources, as well as potential habitat for special-status species, including elderberry shrubs (*Sambucus nigra* subsp. *caerulea)*. Evidence of bird-nesting activity and sites was also sought during the May site visit. On December 9, 2019, a reconnaissance-level assessment of the entire project area was performed. Similar to the May survey, the areas were walked with meandering transects. Existing trees within or adjacent to the pipeline corridor were inventoried to record species, diameter(s) at breast height, estimated total height, and general condition. Significant biological resources, such as the drip lines around the canopies of trees or elderberry shrubs, as well as top of bank and limits of riparian vegetation, were mapped in the field using a hand-held GPS device.

3.4.2 Setting

The project is located primarily in agricultural lands in relatively flat terrain and topography. The Feather River, a large, perennial water body, flows south into the Sacramento River. The project area and vicinity include the following features:

- Earthen levees
- Extensive riparian vegetation
- Unpaved and paved roadways, including Garden Highway
- Orchards, mainly consisting of fruit and nut trees

The project is located within the River Alluvium subsection of the Great Valley ecological subregion (Miles and Goudey 1997). This subsection contains the alluvial plain and natural levees along the Sacramento and Feather Rivers. The natural levees have largely been obliterated by the construction of artificial levees along the rivers. Topography in the region is generally flat. The project is in the Lower Feather hydrologic unit. The main aquatic resource in the region is the Feather

River whose flow is controlled by Oroville Dam upstream of the project area. The Feather River flooded large areas annually before its flow was artificially controlled.

3.4.2.1 Natural Communities

The project area contains three types of natural communities that could provide or enhance habitat for special-status terrestrial wildlife species and special-status fish. These three natural communities are valley riverine aquatic habitat, valley/foothill riparian community, and upland vegetation community.

3.4.2.1.1 Valley Riverine Aquatic

Valley riverine aquatic habitat in the project area consists of the Feather River and associated shaded riverine aquatic (SRA) habitat. Approximately 1.2 acres of valley riverine aquatic habitat occurs in the project area. Valley riverine aquatic habitat is considered jurisdictional waters of the United States under Section 404 of the CWA. The associated overhead cover SRA habitat (that is, riparian habitat) is described in Section 3.4.2.1.2, Valley/Foothill Riparian Community.

Valley riverine aquatic habitat in the project area provides habitat for anadromous and other fish species. The river also provides habitat for numerous other fish and wildlife species. The Feather River includes approximately 60 miles of anadromous fish habitat from Oroville Dam to the northeast at an elevation near 300 feet, downstream to the confluence with the Sacramento River. Because of the lack of suitable spawning substrate and low elevation, anadromous salmonid spawning is only likely to occur upstream of the project area; rearing of juvenile salmonids in the project area is unlikely because of warm summer water temperatures.

3.4.2.1.2 Valley/Foothill Riparian Community

The valley/foothill riparian community in the project area consists of riparian woodland and riparian scrub. Valley/foothill riparian communities are assumed to be nonjurisdictional (that is, not regulated under Section 404 of the CWA). Riparian habitat has been designated by CDFW as a habitat of special concern in California because of its limited abundance and high value to wildlife. Overstory trees may be used for nesting and roosting by numerous raptors and other birds, such as herons and egrets. Riparian communities provide important nesting and foraging habitat for resident, migratory, and wintering songbirds. In addition, riparian vegetation provides habitat for several species of mammals. Riparian habitat also provides SRA overhead and instream cover.

The vegetation community between the levee toe and the river is disturbed by routine maintenance (for example, firebreak disking) and grading of access roads, and contains a mixture of non-native ruderal and herbaceous plant species and a few sparse shrubs, such as coyote brush (*Baccharis pilularis*). The riparian community along the Feather River in the project area is composed primarily of native trees and shrubs, including:

- Valley oak
- Fremont cottonwood (*Populus fremontii*)
- Oregon ash (*Fraxinus latifolia*)
- Blue elderberry (*Sambucus nigra* subsp*. caerulea*)
- Red willow (*Salix laevigata*)
- California rose (*Rosa californica*)

Sparse native and invasive species that occur as individuals or in isolated, small- to medium-sized patches within and adjacent to the Feather River slope include the following:

- Giant reed (*Arundo donax*)
- Mulefat (*Baccharis salicifolia*)
- California grape (*Vitis californica*)
- Catalpa (*Catalpa* sp.)
- Sandbar willow (*Salix exigua*)

The herbaceous understory layer between the levee and the Feather River bank was predominantly composed of the following:

- Wild oat
- Soft chess
- Ripgut brome

There are also isolated patches that include:

- Vetch (*Vicia villosa*)
- Mugwort (*Artemisia douglasiana*)
- Poison hemlock (*Conium maculatum*)
- Rose clover (*Trifolium hirtum*)
- Red-stem filaree (*Erodium cicutarium*)
- Miniature lupine (*Lupinus bicolor*)

3.4.2.1.3 Upland Vegetation Community

The vegetation community on the land side of the levee comprises primarily developed land that includes residential housing, unpaved access roadways, paved roadways, and existing or recently cleared nut tree orchards. In the northern portion of the project areas, there is some open space land where the vegetation has either been cleared or where former riparian trees, such as Valley oak (*Quercus lobata*), common sycamore (*Platanus racemosa*), and common hackberry (*Celtis occidentalis)*, are found within non-native annual grassland and weedy, ruderal habitats.

The annual grasslands are characterized by a mix of predominantly non-native (naturalized) plants, such as the following:

- Wild oats (*Avena fatua*)
- Soft chess (*Bromus hordeaceous*)
- Ripgut brome (*Bromus diandrus*)
- Curly dock (*Rumex crispus*)

The Feather River levee now separates the former riparian trees from actual riparian areas that are on the river side of the levee.

3.4.2.2 Wetlands and Other Waters

The project area in the vicinity of the outfall structure spans the channelized Feather River, which is jurisdictional under the CWA. The Feather River is characterized as riverine, lower perennial, unconsolidated bottom, permanently flooded. There are two small areas classified as freshwater forested/shrub wetland between the project area and the Feather River along the pipeline alignment. No federally protected wetlands are within the project area, as defined by Section 404 of the CWA.

3.4.2.3 Special-Status Species

The desktop review identified 17 state or federally listed species and 6 unlisted special-status species with some potential to occur within or adjacent to (within 3 miles) the project area. Appendix B includes a list of the special-status species identified during the desktop review and their likelihood of occurrence within the project area based on habitat requirements and observed suitable habitat. Habitat for the special-status species described in this section was identified within and adjacent (within 3 miles) to the project area. As noted in Appendix B, several identified species lack habitat in the project area.

3.4.2.3.1 Plants

Literature and database review identified one federally endangered plant and three rare plants that may be found in suitable habitats within 3 miles of the project area (Appendix B) (CDFW 2020, USFWS 2020b, CNPS 2020). However, no suitable habitat for these species was identified within the project area during the field visit.

3.4.2.3.2 Wildlife

Literature and database review identified a total of 14 special-status wildlife species that may be found in suitable habitats within 3 miles of the project area (Appendix B) (CDFW 2020; USFWS 2020b). Of these 14 species, only 3 are likely to occur at the project site (valley elderberry longhorn beetle, Swainson's hawk, and bank swallow); these species are discussed in the following subsections. Bird species protected under the Migratory Bird Treaty Act (MBTA) with the potential to occur are also discussed. All other species are considered unlikely to occur in the project area because known occurrences are presumed extirpated, or there is lack of suitable habitat within the project area.

3.4.2.3.2.1 Vernal Pool Invertebrates

Two species, the endangered conservancy fairy shrimp (*Branchinecta conservatio*) and threatened vernal pool fairy shrimp (*Branchinecta lynchi*) are not known to occur within 3 miles of the project areas. The nearest vernal pool complex with suitable habitat for endangered vernal pool tadpole shrimp (*Lepidurus packardi*) and unlisted California linderiella (*Linderiella occidentalis*) is located almost 3 miles from the project area on the opposite (eastern) side of the Feather River. No evidence of ponded aquatic features within the project area that could represent potential habitat for these vernal pool invertebrates was observed during the reconnaissance-level field surveys. Therefore, occurrence of these species within the project area is considered unlikely.

3.4.2.3.2.2 Valley Elderberry Longhorn Beetle

Elderberry shrubs (*Sambucus* spp.) are the obligate host plant of the federally listed valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*). Adult valley elderberry longhorn beetle feed on foliage, and females lay eggs on living elderberry shrubs. Larvae bore through the stems of the shrubs to create an opening in the stem, where they then pupate. Stems need to be at least about 1 inch in diameter. Approximately 1 month later, the adult beetle emerges from the stem through the previously created exit hole. Adult emergence, mating, and egg-laying occurs in the spring and summer (March to July), typically coinciding with the elderberry flowering period.

While no elderberry shrubs were observed within the project area on the land side of the levee during the December 2019 survey, there are five elderberry shrubs that were originally mapped in May 2019 between the levee and the river that occur within a 164-foot protective buffer from the permanent aboveground footprint and temporary footprint construction areas.

3.4.2.3.2.3 Swainson's Hawk

The historical range of nesting Swainson's hawks (*Buteo swainsoni*) in California included the Southern Transverse Ranges, Central Coast Ranges, Central Valley, Great Basin, and Mojave-Colorado Desert (Bloom 1980). Within California, nesting Swainson's hawks are locally common to rare in the Central Valley and Great Basin (Woodbridge 1998). Central Valley populations are centered in Sacramento, San Joaquin, and Yolo Counties.

Swainson's hawk nest sites are typically located in riparian woodlands, lone trees, or groves of trees in agricultural fields (Estep 1984). Most nest trees are within farmsteads, along roadsides, and near cropland. The most common nest tree species in the Central Valley include the following:

- Fremont cottonwoods (*Populus fremontii*)
- Oaks (*Quercus* sp.)
- Willows (*Salix* sp.)
- Walnuts (*Juglans* sp.)
- Eucalyptus (*Eucalyptus* sp.)
- Pines (*Pinus* sp.)
- Deodar cedar (*Cedrus deodora*)

Swainson's hawk nests in the Central Valley are typically built in the semi-exposed sections of the upper canopy or lateral branches of tall trees. Swainson's hawks forage over open habitats. Suitability of foraging habitat is highly dependent on the amount and distribution of different crop types and the small mammal communities associated with them. In

agricultural habitats, foraging activity is closely associated with harvest or cultivation activities that expose prey to predation (Estep 1989, Woodbridge 1991).

Eleven known Swainson's hawk nesting locations are within 3 miles of the project area. The three nearest nests are located within 0.75 mile of the project area on the opposite (eastern) side of the Feather River. No potential or known nesting trees are located within the project area, and there is no suitable Swainson's hawk foraging habitat in the project area.

3.4.2.3.2.4 Bank Swallow

The bank swallow (*Riparia riparia*) forms nesting colonies in natural banks, bluffs, and cliffs where erosion, primarily from running water, maintains a vertical surface. The vertical surface discourages growth of vegetation and protects nests from predation. Sandy or loamy soils are necessary to allow for burrowing. Most rivers and streams with nesting habitats are low-gradient, meandering waterways with eroding streamside banks (Garrison 1999). This species tends to return each nesting season to the same reach of river, although not necessarily the same bank site (Buechner 1992).

There are three known bank swallow nesting colonies within 3 miles of the project area. Two of these colonies are more than 1 mile downstream of the project area. The other is approximately 0.3 mile north of the bifurcation station at the northern end of the pipeline. Potentially suitable habitat could occur along limited portions of the steep western bank of the Feather River.

3.4.2.3.2.5 Least Bell's Vireo

Least Bell's vireo (*Vireo bellii pusillus*) occurred historically within 3 miles of the project area (CDFW 2020). However, this occurrence is based on a single collection from 1878, and by 1984, the species had been extirpated from much of its former range and was restricted to Southern California south of Santa Barbara. No suitable habitat is present in the project area to support this species. Therefore, occurrence of this species within the project area is considered unlikely.

3.4.2.3.2.6 Song Sparrow

Song sparrow (*Melospiza melodia*) occurred historically within 3 miles of the project area (CDFW 2020). However, this occurrence is based on a single collection from 1915. No suitable habitat is present in the project area to support this species. Therefore, occurrence of this species within the project area is considered unlikely.

3.4.2.3.2.7 Tricolored Blackbird

Most tricolored blackbird (*Agelaius tricolor*) populations are found in California, although small populations occur in Oregon, Washington, Nevada, and coastal Baja California (Beedy 2008). Tricolored blackbirds are locally common throughout the Central Valley and along the coast south of Sonoma County (Grinnell and Miller 1944, McCaskie et al. 1979, Garrett and Dunn 1981). Tricolored blackbirds usually nest in large flocks in dense vegetation near open water or in emergent wetland vegetation, especially cattails and tules, but sometimes in thickets of willow, blackberry, wild rose, tall herbs, and willow thickets (Granholm 1990, Terres 1980). This species is not typically found in dense oak woodland and chaparral. Wintering tricolored blackbirds often congregate in huge, mixed-species blackbird flocks that forage in grasslands and agricultural fields with low-growing vegetation and at dairies and feedlots (Beedy 2008).

Three known tricolored blackbird nesting colonies were identified within 3 miles of the project area. The two colonies closest to the project area (approximately 1.5 miles from the bifurcation station at the northern end of the pipeline and nearly 3 miles southeast) may be extirpated. The colony presumed extant is nearly 3 miles north of the project area. No suitable habitat is present in the project area to support this species.

3.4.2.3.2.8 White-Tailed Kite

In California, the white-tailed kite (*Elanus leucurus*) is a year-round resident in coastal and valley lowlands, rarely found away from agricultural areas (Grinnell and Miller 1944). The white-tailed kite inhabits low elevation, open grasslands, savannahs, agricultural areas, wetlands, and oak woodlands. Riparian areas adjacent to open areas are used for nesting

(Dunk 1995). Large groves of dense, broad-leafed deciduous trees are used for nesting and roosting (Brown and Amadon 1968).

One known white-tailed kite nesting location is known approximately 3 miles east of the project area. However, no suitable habitat is present in the project area to support this species.

3.4.2.3.2.9 Birds Protected Under the Migratory Bird Treaty Act

Suitable nesting habitat for birds federally protected by the MBTA is present within and adjacent to the project area. This includes trees, shrubs, and dense vegetation in various locations within the project area. Therefore, occurrence of these species within the project area is considered moderate.

3.4.2.3.3 Special-Status Fish Species

Literature and database review identified five special-status fish species that may be found in suitable habitats within 3 miles of the project area. Of these five species, three are known to occur within the project area (Appendix B) (CDFW 2020, USFWS 2019a, NOAA Fisheries 2019); these species are discussed in detail in the next subsections. Although winter-run Chinook salmon do not spawn in the Feather River, out-of-basin juveniles may occasionally use the Feather River for non-natal rearing and growth from November through March; this species is not discussed further.

3.4.2.3.3.1 Steelhead (Central Valley Distinct Population Segment)

Adult Central Valley Distinct Population Segment (DPS) steelhead (*Oncorhynchus mykiss irideus*) migrate into the Feather River from July to March but primarily from August through November (McEwan 2001). Most natural Adult Central Valley DPS steelhead spawning in the lower Feather River occurs in the low-flow channel downstream of the Fish Barrier Dam; however, limited spawning also occurs downstream of the Thermalito Afterbay Outlet (Federal Energy Regulatory Commission [FERC] 2007). Depending on water temperatures, eggs hatch in 3 to 5 weeks. Yolk-sac fry remain in the spawning area gravel for another 2 to 3 weeks. The first foods are microorganisms and, later, aquatic insects, such as caddis flies, stoneflies, or midge larvae. Young emerge from gravels from late spring to early summer and spend 1 or more years in freshwater before beginning the downstream migrations to the ocean (Moyle 2002).

Juvenile Adult Central Valley DPS steelhead rear in the Feather River year-round, primarily in the low-flow channel and upper reaches of the high-flow channel (upstream of the project area), and most outmigrate as yearlings or older juveniles in the winter and spring (California Department of Water Resources [DWR] 2003, Seesholtz et al. 2004). In-river juvenile rearing is generally associated with secondary channels in the low-flow channel (for example, Hatchery Ditch) (FERC 2007).

Adult Central Valley DPS steelhead adults and juveniles migrate through the project area. Adults are most likely to migrate through the project area between August and November on their way to the Feather River hatchery and spawning habitat in the low-flow channel below Oroville Dam. Juveniles may outmigrate through the project area from February through September, with peak outmigration occurring from March through mid-April. The Feather River Fish Hatchery raises and releases steelhead each year. Hatchery-produced fry are trucked from the hatchery for release downstream of the project site and would not be affected by the project (California Hatchery Scientific Review Group 2012).

3.4.2.3.3.2 Chinook Salmon (Central Valley Spring-Run Evolutionarily Significant Unit)

Adult Central Valley spring-run Evolutionarily Significant Unit (ESU) Chinook salmon begin their upstream migration from the ocean in late January and early February (California Department of Fish and Game 1998) and migrate from the Sacramento River into spawning tributaries primarily between mid-April and mid-June (Lindley et al. 2004). River entry for spring-run Chinook salmon in the Feather River has apparently shifted to later in the season and is now between the spring and fall run into other tributaries. Stream flows must be sufficient to provide olfactory cues for migration and adult passage to upstream holding habitat.

Adults require large, deep pools with moderate flows for holding over the summer prior to spawning in the fall. Central Valley spring-run ESU Chinook salmon spawning occurs during September and October, depending on water temperatures

(NOAA Fisheries 2012). In the Sacramento River and its tributaries, egg incubation extends from August to March. Alevins remain in the gravel for 2 to 3 weeks after hatching while absorbing their yolk sacs. Emergence from the gravels occurs from November to March in the Sacramento River Basin (Fisher 1994, Ward and McReynolds 2001).

The rearing and outmigration patterns exhibited by Central Valley spring-run ESU Chinook salmon are highly variable, with fish rearing anywhere from 3 to 15 months before outmigrating to the ocean (Fisher 1994). Some may disperse downstream soon after emergence as fry in March and April, with others smolt after several months of rearing, and still others remain to oversummer and outmigrate as yearlings (USFWS 1996). In the lower Feather River, most juvenile spring-run Chinook salmon outmigrate within a few days of emergence; 95% of juveniles have typically outmigrated from the Oroville facilities area by the end of May (FERC 2007).

Central Valley spring-run ESU Chinook salmon adults and juveniles migrate through the project area. Based on observations of in the Feather River, adults are likely to be migrating through the project area between February and July on their way to summer holding habitat in the low-flow channel below Oroville Dam. Adults hold and spawn approximately 45 miles upstream in the uppermost 3 miles of accessible habitat below the Feather River Fish Hatchery (DWR 2001). Outmigration typically begins during mid-November, peaks between January and March, and continues through June (DWR 1999a, 1999b, 1999c; Seesholtz et al. 2004). Therefore, rearing and outmigrating juveniles are likely present in the project area from mid-November through June, with the greatest abundance of individuals in January, February, and March.

3.4.2.3.3.3 North American Green Sturgeon (Southern Distinct Population Segment)

Although southern DPS North American green sturgeon (*Acipenser medirostris*) spend most of their life in marine and estuarine environments, they periodically migrate (every 2 to 4 years) into freshwater streams to spawn, spending up to 6 months in freshwater during their spawning migration (Erickson and Webb 2007, Lindley et al. 2008). In the Sacramento River system, adults begin their upstream spawning migrations into the San Francisco Bay in March and reach Knights Landing on the Sacramento River during April (Heublein et al. 2006). Spawning generally occurs between March and July, peaking between mid-April and mid-June (Emmett et al. 1991).

Following emergence in early summer, larval southern DPS North American green sturgeon migrate downstream with snowmelt flows between May and July, growing quickly and becoming more tolerant of increasing water temperatures and salinities. Juveniles migrate into brackish water natal estuaries as early as 1.5 years old (Allen and Cech 2007) and to nearshore coastal waters by 3 years old. Subadults are migratory, spending their next 12 to 16 years foraging in the coastal ocean and entering western estuaries during the summer (Moser and Lindley 2007).

The Sacramento River watershed is the only confirmed historical and present spawning area for southern DPS North American green sturgeon (Adams et al. 2007). Prior to 2011, only two records of adults in the lower Feather River were confirmed (70 *Federal Register* 17386 through 17401). Spawning at the Thermalito Afterbay Outlet in the Feather River was first documented during June 2011 (Seesholtz et al. 2014) by the presence of fertilized eggs collected from egg mats and coincided with the above-average flows during a wet year. Adults have been detected in other areas in the Feather River (from the Fish Barrier Dam to Shanghai Bend), but aside from the Thermalito Afterbay Outlet, spawning has only been confirmed in 2017 at the Fish Barrier Dam (NOAA Fisheries 2018).

Southern DPS North American green sturgeon adults and juveniles may migrate through the project area. Adults are most likely to be migrating through the project area between February and July on their way to potential spawning habitat upstream. There were no records of larval or juvenile sturgeon even before the Oroville Dam was built (NOAA Fisheries 2005) but, given the recent evidence of spawning in the lower Feather River, juveniles may be migrating through the project area from May to July.

3.4.2.4 Wildlife Migratory Corridors

The *Yuba City General Plan* notes that successful wildlife corridors along the Feather River would provide routes for wildlife movement and access to water, without a physical barrier. The general plan update includes implementing Policy 8.4-I-5 to: “Establish wildlife corridors in conjunction with implementation of the Feather River Parkway Plan to minimize wildlife-urban conflicts” (City 2004).

The *Sutter County General Plan Policy Document* contains goals and policies showing that the County values its environmental resources and is committed to the protection of its wildlife and habitat, minerals, water, scenic amenities, cultural resources, and air quality. Under Policy ER 3.5's third goal (County 2011) to "…conserve, protect, and enhance Sutter County's varied wildlife and vegetation resources…," there is a commitment to:

> *"…Preserve and enhance wildlife movement corridors between natural habitat areas to maintain biodiversity and prevent the creation of biological islands. Preserve contiguous habitat areas when possible."*

3.4.2.5 Trees

The *Yuba City General Plan* includes implementing Policy 8.4-I-5 (City 2004):

> *"Require preservation of oak trees and other native trees that are of a significant size, by requiring site designs to incorporate these trees to the maximum extent feasible."*

However, "significant size" is not defined in the *Yuba City General Plan*.

The *Sutter County General Plan Policy Document* Policy ER 3.7, Oak Trees (County 2011), states:

> *"Preserve native oak trees when possible through the review of discretionary development projects and activities. Reduce the loss of oak trees through consideration of tree mitigation/replanting programs."*

In 2020, trees within the project area were inventoried; accessible trees were located using global positioning system (GPS) mapping and located trees were characterized as to species, size, height, and vigor. This 2020 tree survey did not inventory trees that were located on private lands; however, trees on private lands were characterized, when feasible, using binoculars to estimate species, size, and height; and the drip line was estimated from aerial photographs.

3.4.3 Impact Analysis

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. As described, the project area and vicinity support potential habitat for several special-status species.

3.4.3.1 Special-Status Plants

Four special-status plants may occur in the vicinity (within 3 miles) of the project area. However, two unlisted species (recurved larkspur [*Delphinium recurvatum*] and veiny monardella [*Monardella venosa*]) are presumed extirpated at the known locations, and the one known occurrence of the endangered Hartweg's golden sunburst (*Pseudobahia bahiifolia*) is based on a single collection from 1847 that is presumed extirpated, based on surveys in 1990 that did not find any suitable habitat (CDFW 2020). The unlisted Ferris' milk-vetch (*Astragalus tener var. ferrisiae*) occurrence is based on a single collection from 1891 that is presumed extant (CDFW 2020), but further field work is warranted.

No suitable habitat for these species was identified within the project area during the field visit. Therefore, implementation of the project would have no impact on these plant species.

3.4.3.2 Vernal Pool Invertebrates

Two special-status vernal pool crustaceans may occur in the vicinity (within 3 miles) of the project area. Two other vernal pool species are not known to occur within 3 miles of the project area (CDFW 2020).

No evidence of ponded aquatic features within the project area that could represent potential habitat for listed vernal pool invertebrates was observed during the reconnaissance-level field surveys. Therefore, implementation of the project would have no impact on these vernal pool species.

3.4.3.2.1 Valley Elderberry Longhorn Beetle

Suitable habitat for valley elderberry longhorn beetle is present in the project area between the levee and the Feather River near the location of the outfall structure. There are five elderberry shrubs between the levee and the river that occur within a 164-foot protective buffer from permanent aboveground footprint and temporary footprint construction areas. There would be no direct impacts (such as removal or trimming) to those nearby plants, but they would require fencing and sign protection during construction. Although no direct encroachment would occur, USFWS standard mitigation protocols (USFWS 1999, 2017) would be implemented as appropriate to minimize and mitigate potential impacts.

Impact BIO-1. Project construction may result in significant adverse impacts to valley elderberry longhorn beetle.

Mitigation Measure BIO-1. The following measures will be implemented to avoid, minimize, and mitigate for impacts to valley elderberry longhorn beetle:

- As much as feasible, all activities that could occur within 164 feet of an elderberry shrub will be conducted outside of the valley elderberry longhorn beetle's flight season (March to July).
- A qualified biologist will provide training for all contractors, work crews, and any onsite personnel on the status of the valley elderberry longhorn beetle, its host plant and habitat, the need to avoid damaging the elderberry shrubs, and the possible penalties for noncompliance.
- Herbicides will not be used within the shrub dripline. Insecticides will not be used within 98 feet of an elderberry shrub. All chemicals will be applied using a backpack sprayer or similar direct application method.
- To the maximum extent possible based onsite conditions, orange construction fencing will be placed more than 20 feet outward from the shrub dripline to be avoided.
- Signs will be erected and attached to the fencing a minimum of 50 feet apart and will state the following:

  > *"This area is habitat for the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment."*

  The signs will be placed in clearly visible locations and will be readable from a distance of 20 feet (USFWS 1999).

With incorporation of these measures, implementation of the project would have a less than significant impact on valley elderberry longhorn beetle.

3.4.3.2.2 Swainson's Hawk

Eleven known Swainson's hawk nesting locations are within 3 miles of the project area. The three nearest nests are located within 0.75 mile of the project area on the opposite (eastern) side of the Feather River. No potential or known nesting trees are located within the project area, and there is no suitable Swainson's hawk foraging habitat in the project area. Although Swainson's hawks are not known to nest in the project area, it is possible that a nesting site could be established prior to construction. Construction activities occurring near an active Swainson's hawk nest could result in significant impacts.

Impact BIO-2. Project construction may result in significant adverse impacts to nesting Swainson's hawks.

Mitigation Measure BIO-2. The following measures will be implemented to avoid, minimize, and mitigate for impacts to Swainson's hawk.

- Prior to any construction activities on or adjacent to the project site, construction personnel would receive worker environmental awareness training to recognize Swainson's hawks and potential nesting sites.
- Any construction activities conducted during the normal nesting season (March 1 through September 15) for Swainson's hawk would be preceded by a preconstruction survey no later than 15 days prior to the start of construction. Preconstruction nesting bird surveys and ongoing nesting surveys will be conducted by a qualified biologist, covering a radius of 0.25 mile for Swainson's hawk, at all work locations. Ongoing nesting surveys or monitoring during construction may be required if nesting Swainson's hawks are found within 0.25 mile of the project area so that construction activities have no adverse effect.
- If active nests are identified during the preconstruction survey, then the biologist will evaluate whether existing screening buffers (such as buildings, trees, and intervening topography) are sufficient to allow work to proceed and will determine what level of work exclusion buffers or nest monitoring is needed, if any. This could result in work areas being reduced in size.
- If work cannot proceed without disturbing nesting birds, or if signs of disturbance are observed by the monitor, then work may be halted or redirected to other areas until nesting and fledging are complete or until the nest has otherwise become inactive.
- Noise, vibration, dust, and vehicle movement will be kept to the minimum necessary. Movement of equipment and vehicles to and from the project site will be restricted to established roadways and designated staging areas to minimize habitat disturbance. Project-related vehicles will observe a 15-mph speed limit within the construction area.

With incorporation of these measures, implementation of the project would have a less than significant impact on Swainson's hawk.

3.4.3.2.3 Bank Swallow

Three known bank swallow nesting colonies are known within 3 miles of the project area. Two of these colonies are more than 1 mile downstream of the project area. The other is approximately 0.3 mile north of the bifurcation station at the northern end of the pipeline. Potentially suitable habitat could occur along limited portions of the steep western bank of the Feather River.

Any potential impacts to bank swallows from implementation of the project would be avoided, minimized, and mitigated by incorporating the measures for migratory birds described in Section 3.4.3.1.10 (**MM-BIO-3**). Therefore, implementation of the project would have a less than significant impact on bank swallow.

3.4.3.2.4 Least Bell's Vireo

This species occurred historically within 3 miles of the project area (CDFW 2020). However, this occurrence is based on a single collection from 1878, and by 1984, the species had been extirpated from much of its former range and was restricted to Southern California south of Santa Barbara. No suitable habitat is present in the project area to support this species. Therefore, implementation of the project would have no impact on least Bell's vireo.

3.4.3.2.5 Song Sparrow

This species occurred historically within 3 miles of the project area (CDFW 2020). However, this occurrence is based on a single collection from 1915. No suitable habitat is present in the project area to support this species. Therefore, implementation of the project would have no impact on song sparrow.

3.4.3.2.6 Tricolored Blackbird

Although three tricolored blackbird nesting colonies were identified within 3 miles of the project area, two colonies may be extirpated. The one colony that is presumed extant is nearly 3 miles north of the project area (CDFW 2020). No suitable habitat is present in the project area to support this species. Therefore, implementation of the project would have no impact on tricolored blackbird.

3.4.3.2.7 White-Tailed Kite

One known white-tailed kite nesting location is known approximately 3 miles east of the project area (CDFW 2020). However, no suitable habitat is present in the project area to support this species. Therefore, implementation of the project would have no impact on white-tailed kite.

3.4.3.2.8 Migratory Birds

Suitable nesting habitat for birds federally protected by the MBTA is present within and adjacent to the project area. Mature trees within the project site may provide nesting habitat for migratory birds, including raptors (birds of prey). Nesting birds may occur on the project site as potential nesters during the breeding season. Therefore, construction activities could result in significant impacts.

Impact BIO-3. Project implementation may result in significant adverse impacts to migratory birds covered under the MBTA.

Mitigation Measure BIO-3. The following measures will be implemented to avoid, minimize, and mitigate for impacts to special-status birds and migratory birds covered under the MBTA.

- Construction activities will be scheduled to avoid the nesting season (February 1 through August 31, inclusive) if feasible. If construction activities are scheduled to take place outside the nesting season, impacts on nesting birds will be avoided.
- If ground-disturbing activities cannot be scheduled to occur between September 1 and January 31, then preconstruction surveys for nesting birds will be conducted by a qualified biologist so that no nests will be disturbed during project construction. If work begins during the early part of the nesting season (February 1 to April 30, inclusive), a qualified biologist will survey all suitable nesting habitat in the project area for presence of nesting birds. This survey will occur no more than 14 days prior to the start of ground-disturbing activities and will cover an area within a 250-foot buffer for nonlisted raptors, and 100 feet for nonlisted passerines. If work begins during the late part of the nesting season (May 1 to August 31, inclusive), a qualified biologist will survey all suitable nesting habitat in the project area for presence of nesting birds. This survey will occur no more than 30 days prior to the start of ground-disturbing activities.
- If active nests are identified during the preconstruction survey, then the biologist should evaluate whether existing screening buffers (such as buildings, trees, and intervening topography) are sufficient to allow work to proceed and determine what level of work exclusion buffers or nest monitoring is needed, if any. This could result in work areas being reduced in size.
- If work cannot proceed without disturbing nesting birds, or if signs of disturbance are observed by the monitor, then work may be halted or redirected to other areas until nesting and fledging are complete or until the nest has otherwise become inactive.

With incorporation of these measures, implementation of the project would have a less than significant impact on special-status birds and migratory birds covered under the MBTA.

3.4.3.3 Special-Status Fish Species

Of the five special-status fish species identified during the desktop review, three are known to occur within the project area or within 3 miles of the project site (CDFW 2020): Central Valley DPS steelhead, Chinook salmon (Central Valley spring-run ESU), and North American green sturgeon (southern DPS). As described, one or more life stages of these

species may migrate through the project area that intersects the Feather River. Therefore, construction of the outfall structure could result in significant impacts.

Impact BIO-4. Project implementation may result in significant adverse impacts to special-status fish species.

Construction of the project would not have measurable effects on water temperature. Some riparian trees would be removed along the pipeline alignment and trestle area, but the shade of these trees has little effect on water temperatures in the Feather River floodplain.

Activities associated with pipeline construction would result in direct soil and sediment disturbance. These activities would not cause temporary, localized turbidity that could reach levels that adversely affect fish. These upland sources of erosion, such as construction access roads, will be contained using erosion control and sediment detention measures described in the project's Erosion and Sediment Control Plan. Erosion control measures will be frequently inspected to continually manage ground-disturbing activities.

In-water activities could generate localized and short-duration turbidity events associated with disturbance of the streambed. Although the duration and risk of exposure to project-related turbidity is small, fish may still encounter unfavorable habitat conditions caused by in-water work. Pulses of increased suspended sediment can affect fish behavior by displacing fish as they seek new habitat with clearer water. Behavioral changes may induce physiological stress, reduced feeding success, and diminished ability to detect and avoid predators. Also, suspended sediment can physically harm fish gills, and the deposition of sediment can reduce the quality of substrates and bury aquatic macro-invertebrates and other fish food sources. The effect of suspended sediment on fish is a function of concentration and exposure duration (Newcombe and Jensen 1996). There would be unaffected areas nearby that fish can access as turbidity refugia (Bash et al. 2001).

Work platform piles would be driven in water with a vibratory or impact hammer by a crane working from the constructed work platform. Pile driving for the diffuser (support bents, cofferdam, dolphin) would require use of an impact hammer because the piles are load bearing. Pile driving would temporarily increase underwater sound levels that would exceed background levels, with the potential for adverse effects on fish.

Aquatic substrates would be removed from the pipe trench, salvaged and temporarily stockpiled, and reused as backfill at the top of the trench (over the pipe and imported pipe zone material) to restore preconstruction contours. Temporary impact to substrates would occur by disturbing aquatic habitat during in-water work, reducing benthic productivity and delivering suspended sediments and turbid water within cofferdams. Temporary impacts to instream habitat and benthic productivity would be of short duration and minimal, as benthic communities would recolonize disturbed areas rapidly and with similar diversity and abundance as the preconstruction conditions.

Mitigation Measure BIO-4. The following measures will be implemented to protect special-status fish species during construction to avoid, minimize, and mitigate for impacts to these and other fish species:

- Confine scheduled in-water work to the period between June 1 to October 31 during the summer low-flow period.
- Confine scheduled in-water work to the daytime (sunrise to sunset).
- Have a designated fisheries biologist onsite during all in-water pile driving activities. If any fish species are found (in the vicinity of the project or within 150 feet) displaying signs of injury, stop pile driving, and contact the appropriate agencies (NMFS and CDFW) for further consultation, which may require additional conditions to prevent injury to fish.
- Avoid or minimize pollutants discharged to water bodies in dewatering return water. Detain and treat water from dewatering prior to discharge to surface water.
- During pile removal, follow these steps:
    - Install floating boom to capture debris.
    - Keep equipment out of the water and grip piles above the waterline.
    - Complete work during low water and low current conditions.
    - Dislodge the pile with a vibratory hammer, when possible.

- Slowly lift the pile through the water column.
- Place the pile in containment (that is, plastic) without attempting to clean it.
- Fill holes with clean, native sediments.
- Dispose of potentially contaminated materials at a permitted upland disposal site.

- Implement pollution control best management practices (BMPs) to prevent spills and leaks into water bodies, including the following:
  - If maintenance or refueling of vehicles or equipment must occur onsite, use a designated upland area or a secondary containment, located away from drainage courses to prevent spill and stormwater runoff.
  - Confirm that all vehicles and equipment are in good working order (no leaks).
  - Place drip pans or absorbent materials under vehicles and equipment when not in use.
  - Confirm that all work areas have proper spill cleanup materials (including absorbent pads, sealed containers, booms) to contain spills.
  - Prevent other substances that could be hazardous to aquatic life resulting from project-related activities from contaminating the soil or entering waters of the State.
  - Monitor and maintain pollution control BMPs at all times.
  - Remove all vehicles and equipment from the site upon completion of work activities.
  - Implement precautions to minimize turbidity and siltation during construction and postconstruction periods, including erosion control BMPs to stabilize exposed and disturbed areas within the project site to the greatest extent possible.

With incorporation of these measures, implementation of the project would have a less than significant impact on special-status fish species in the Feather River.

a) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Construction of the project would result in disturbance of 0.25 acres of mixed riparian vegetation along the Feather River bank in the form of removing mature trees, pruning additional trees, and removing understory herbaceous vegetation.

The City will obtain a Section 1601 Lake and Streambed Alteration Agreement from CDFW (per Fish and Game Code Sections 1600 through 616) to complete construction. Mitigation for tree removal will be developed during the CDFW Section 1601 Lake and Streambed Alteration Agreement permitting process.

The anticipated temporary impacts would not be considered significant because the site would be restored at the end of construction. In addition, invasive species would be removed, and the understory would be planted and hydroseeded with fast-growing native plants local to the watershed. Within the following growing season, most of the understory and pruned riparian canopy would be restored to pre-project conditions. Restoration of the site will be implemented to minimize impacts on the riparian corridor during and after construction to reduce impacts to less than a level of significance.

Permanent disturbances to riparian vegetation in the form of mature tree removal would require additional mitigation measures to reduce impacts to less than a level of significance. Mitigation will include an onsite riparian tree mitigation and monitoring plan.

Impact BIO-5. Mature tree removal may result in permanent disturbances to mixed riparian forest and SRA habitat.

Mitigation Measure BIO-5. The project applicant will prepare a riparian tree mitigation and monitoring plan. This plan will outline which native riparian plant species are to be planted onsite adjacent to the riparian canopy. Native riparian plant species recommended for the replacement plantings may include the following species:

- Fremont's cottonwood
- Arroyo willow
- Red willow
- Coast live oak
- Blue elderberry

Plant species used for revegetation will be native to the Feather River watershed and grown from local planting stock. The riparian tree mitigation and monitoring plan will be developed during the CDFW Section 1601 Lake and Streambed Alteration Agreement permitting process.

b) Would the project have a substantial adverse effect on state or federally protected wetlands (including marsh, vernal pool, and coastal areas) through direct removal, filling, hydrological interruption, or other means?

LESS THAN SIGNIFICANT IMPACT. Federally protected wetlands, as defined by CWA Section 404, do not occur at the project site; therefore, there would be no impact. However, work would occur within the ordinary high water mark of the Feather River in the vicinity of the outfall structure. The BMPs outlined for special-status fish species and Standard Project Conditions (for example, stormwater pollution prevention plan [SWPPP]), and features will prevent sediment from entering the Feather River in amounts that would be harmful to existing beneficial uses or special-status species.

c) Would the project 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?

LESS THAN SIGNIFICANT IMPACT. The project would have short-term disturbance to riparian habitat and to the project area's ecosystem function as a wildlife migratory corridor during construction. As described in Section 3.10.2 (a), a construction general permit, as well as a prepared SWPPP will be followed during construction to avoid impacts on aquatic habitat and water quality. In addition, Mitigation Measures BIO-1 through BIO-4 will be implemented to avoid impacts to fish and wildlife species. As a result, the project would not substantially interfere with the movement of native resident or migratory fish or wildlife species, or impact native resident or migratory wildlife corridors. Implementation of these mitigation measures will reduce the impacts to a less than significant level. Additional permits, including a CDFW Section 1601 Lake or Streambed Alteration Agreement, will be obtained as necessary.

d) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

*NO IMPACT***.** There are no local policies or ordinances protecting biological resources; therefore, there would be no impact.

e) Would the project conflict with the provisions of an adopted HCP; Natural Community Conservation Plan; or other approved local, regional, or state HCP?

*NO IMPACT***.** The project area is not located within the plan or permit area of any adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state HCP. Therefore, there would be no impact.

3.5 Cultural Resources

Cultural Resources Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to California Code of Regulations (CCR) Section15064.5?	☐	☐	☒	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CCR Section15064.5?	☐	☒	☐	☐
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

3.5.1 Setting

A literature review was conducted to identify previously conducted cultural resources studies and previously recorded cultural resources within the project area and a 0.5-mile radius project area. The literature review was conducted in May 2019 through the Northeast Information Center of the California Historical Resources Information System (CHRIS) and included a review of the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), California Points of Historical Interest, and California Historic Landmarks. Additionally, the Sacred Lands File, which was developed by the Native American Heritage Commission (NAHC) was reviewed on December 6, 2018, and April 23, 2019, to identify sacred and tribal cultural sites within the 0.5-mile radius project area. The results of the Sacred Lands File Search were negative.

A pedestrian survey of the project area was completed with transects generally oriented parallel to the long axis of the project area. The survey was limited to surface inspection and included a close examination of the following elements:

- Exposed sediments
- Cutbanks
- Graded areas
- Rodent burrows
- Game and pedestrian trails
- Other areas of recent disturbance

The pedestrian survey also involved inspection of the local topography to identify areas that have been subject to modern anthropogenic landscape alterations and that offer higher archaeological potential for subsurface resources within the area of ground disturbance that might require additional investigation through subsurface testing.

3.5.2 Impact Analysis

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in CCR Section15064.5?

LESS THAN SIGNIFICANT IMPACT. The background research and literature review indicated that one previously identified NRHP-listed or NRHP-eligible archaeological site is located within the project area. The Feather River West Levee is an approximately 41-mile-long earthen flood control structure that runs along the project area. The project includes a pipeline crossing of the levee but would not result in permanent changes to the character-defining features; integrity of the levee (including its overall design and form); or the materials, workmanship, and general physical characteristics that convey the historical significance of the levee. Further, the levee would not be physically modified by the narrow pipeline crossing, and the levee would continue to serve its intended purpose within the context of flood control. Therefore, the impact would be less than significant.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to CCR Section 15064.5?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. The project would be adjacent to a river, which is often associated with prehistoric uses; however, there are no previously recorded archaeological resources or sacred lands are located in the project area. The project area has been subject to previous disturbances, and much of the surrounding area has been graded and developed without exposing archaeological resources during the past 30 years.

A pedestrian survey of the project area did not identify previously unknown cultural resources. The pedestrian survey determined that most of the project area is characterized by surface disturbance. While visibility was relatively good, no archaeological sites were identified. Because the project area is underlain by Holocene alluvial deposits, construction activities extending beyond 2 feet below the present ground surface may encounter unknown prehistoric and historic era archaeological sites and resources.

While these efforts did not identify archaeological resources within the project area, unidentified resources could be present or encountered during ground-disturbing activities in previously undisturbed soils, for which the following mitigation would be applied to reduce potential impacts to less than significant.

Mitigation Measure CUL-1. To minimize potential impacts on unknown prehistoric and historic era archaeological sites and resources, the project applicant will implement the following measures:

- The design engineer will note on any plans areas that require ground-disturbing excavation with the potential for exposing buried cultural resources (for example, construction activities extending 2 feet below ground surface).
- The construction contractor will retain a professional archaeologist to provide a preconstruction briefing to supervisory personnel of any excavation contractor to alert them to the possibility of exposing significant prehistoric archaeological resources within the project area. The briefing will include a discussion of any archaeological objects that could be exposed, the need to stop excavation at the discovery, and the procedures to follow regarding discovery protection and notification to the City and archaeological team.
- The construction contractor will retain a professional archaeologist during ground-disturbing construction activities for the project extending 2 feet below ground surface to review, identify, and evaluate cultural resources that may be inadvertently exposed during construction. If previously unidentified cultural resources are discovered during project construction, the contractor will cease work within 50 feet of the resources and notify the City immediately. The archaeologist will review and evaluate any discoveries to determine whether they are historical resources or unique archaeological resources under CEQA.
- If the professional archaeologist determines that any cultural resources exposed during construction constitute a historical resource or unique archaeological resource, then the archaeologist will notify the City of the evaluation and recommended mitigation measures to mitigate to a less than significant impact. Mitigation measures may include any of the following, or any combination of these:
    - Avoidance
    - Preservation in place
    - Recordation
    - Additional archaeological testing
    - Data recovery

  Any significant cultural resources will be treated only with City approval. The archaeologist will document the resources using California Department of Parks and Recreation Form 523 and file the form with the Northeast Information Center of the CHRIS. The archaeologist will submit a report of the findings and methods for curating or protecting the resources to the City for review and approval before resuming work. Further work within the area of discovery will not be allowed until these steps have been taken.

c) Would the project disturb any human remains, including those interred outside of formal cemeteries?

LESS THAN SIGNIFICANT IMPACT. No recorded instances of prehistoric or historic human remains are known to be within or adjacent to the project area. In the unlikely event that human remains are discovered during project activities, the construction contractor is required to follow California Health and Safety Code Section 7050.5(b), which specifies protocols if human remains are discovered. By implementing this standard procedure, the impact would be less than significant.

3.6 Energy

Energy Checklist

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

3.6.1 Setting

Depletion of nonrenewable energy resources may be consumed throughout all phases of the project. The *City of Yuba City Resource Efficiency Plan* (City 2016) and the *Sutter County Climate Action Plan* (CAP) (County 2010) identify and discuss goals regarding energy efficiency and the use of renewable energy resources around new development, water efficiency, transportation, and solid waste.

The Y*uba City General Plan* (City 2004) does not include any regulations for energy efficiency or the use of renewable energy resources. The *Sutter County General Plan Policy Document* does, however, mention the use of energy-saving technologies and alternative energy sources (solar, wind, biofuels) within agricultural industries and operations in AG 3.7 (County 2011). The project would not result in a new source of energy consumption; therefore, the City and the County plans for energy efficiency would not necessarily apply to project operations.

3.6.2 Impact Analysis

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

LESS THAN SIGNIFICANT IMPACT. Nonrenewable energy resources, primarily fossil fuels (oil, gasoline, and diesel) for construction equipment, would be used during project construction. These nonrenewable energy resources would follow BMPs (such as reducing idle time) and be used efficiently during construction activities. Project construction would last approximately 14 months and would not consume unnecessary amounts of energy. Power to the bifurcation station would be provided from the adjacent development in buried conduits through the existing and new City pipeline easements. Power to the primer pump (siphon) building would come from a pole-mounted transformer in the public road right-of-way (ROW) and conduits buried in the new City pipeline easement parallel to the outfall pipe. After construction, both sites would need yard and building lighting, controlled by a photocell to turn on at night. Impacts would be less than significant.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

NO IMPACT. The City and County general plans do not include an applicable plan for renewable energy or energy efficiency for wastewater projects. The pipeline would not generate or create a new source of energy, as it is replacing the existing outfall and diffuser; therefore, the project would not conflict and would result in no impact.

3.7 Geology and Soils

Geology and Soils Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
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?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

3.7.1 Setting

Sutter County is part of Great Valley/Central Valley geomorphic province. This area generally contains sedimentary bedrock overlain by alluvial soils. According to the Geological Map of California, the project area is in the Quaternary geological unit and made up of alluvium, lake, playa, and terrace deposits (California Geological Survey [CGS] 2010). Geologic mapping indicates that sedimentary deposits of the Holocene to Pleistocene ages are present within the project area. area. These units as mapped by Harwood and Helley (1986) and can be summarized as follows:

- **Holocene stream channel deposits**—Unconsolidated gravel, sand, and silt deposited by active fluvial processes. These deposits form the banks and margins of the Feather River.

- **Holocene alluvium**—Unweathered gravel, sand, and silt deposited by stream and river systems that drain the Coast Ranges, Klamath Mountains, and Sierra Nevada. These deposits overlie an older alluvial fan system composed of Pleistocene-age sediments.
- **Pleistocene Modesto Formation**—The Modesto Formation is divided into an upper and lower member (that is, distinct upper and lower levels), both of which occur in the project area. The upper member consists of unconsolidated, unweathered gravel, sand, silt, and clay. The lower member consists of consolidated, slightly weathered, well-sorted silt and fine sand, locally containing gravels. The lower member forms alluvial terraces that are topographically higher than those of the upper member.
- **Pleistocene Riverbank Formation**—Unconsolidated but compact, dark brown to red gravel, sand, and silt with minor clay. Forms dissected alluvial fans positioned topographically above Modesto Formation terraces.

Natural Resources Conservation Service (NRCS) maps show the project area contains Conejo loam (Prime Farmland if irrigated) at a 0 to 1% slope, and Conejo tisdale (Farmland of Statewide Importance) at a 0% slope. The access road area contains Columbia fine sandy loam at a 0 to 2% slope (NRCS 2019).

3.7.2 Impact Analysis

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

NO IMPACT. The project area is not located within any known designated Alquist-Priolo Earthquake Fault Zones (County 2008). Therefore, there would be no impact.

ii) Strong seismic ground shaking?

NO IMPACT. The project area is distant from known faults and would experience little to no levels of seismic ground shaking (CGS 2016). Therefore, there would be no impact.

iii) Seismic-related ground failure, including liquefaction?

NO IMPACT. The project area is not located within a liquefaction zone (CGS 2015a). Therefore, there would be no impact.

iv) Landslides?

NO IMPACT. The project area has no record of landslides and is not mapped within a landslide hazard area (CGS 2020). Due to the relatively flat land (0 to 2% slope), there is a low probability for landslides in the project area. Therefore, there would be no impact.

b) Would the project result in substantial soil erosion or the loss of topsoil?

LESS THAN SIGNIFICANT IMPACT. Spoil material from the pipe trench excavation would be placed to backfill the upper portion of the pipeline trench. During construction, implementation of standard construction BMPs and a SWPPP for sediment and erosion control will minimize the potential for erosion. By following these erosion control plans, the project would result in a less than significant impact.

c) Would the project be located on a geologic unit or soils that are unstable, or that would become unstable as a result of the project, and potentially result in an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

NO IMPACT. Liquefaction and other types of failures described in item a) state that the project is not located within a liquefaction zone or within range of a known fault. The project area is mostly flat agricultural land with no record of landslides and would not be subject to becoming unstable. Project disturbance of sloped areas (Feather River levee and bank) have been designed with standard backfill and stabilization measures to ensure stability after construction activity is complete. With these design measures, project impacts would be less than significant.

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

NO IMPACT. The project area does not contain expansive soil and would not create any direct or indirect risks to life or property. Therefore, there would be no impact.

e) Would the project 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?

NO IMPACT. The project does not involve septic tanks or alternative wastewater disposal systems. The project would not generate wastewater. Therefore, there would be no impact.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Holocene sediments do not yield significant fossils because of their relatively young age. Deeper excavations for the pipeline, however, may encounter the Modesto and Riverbank Formations, which have a high potential to contain paleontological resources. Remains of land mammals have been found at a number of localities in alluvial deposits referable to the Modesto or Riverbank Formation. The University of California Museum of Paleontology (UCMP) database (UCMP 2020) and inventory of California Late Pleistocene vertebrate fossils compiled by Jefferson (1991a, 1991b) document three nearby sites in Sutter County that have yielded plant and vertebrate fossils recovered from Modesto Formation sediments. The closest vertebrate fossil to the project site was recovered from an area approximately 3.5 miles west of the levee (UCMP locality V-6426), which yielded a vertebra from a Pleistocene-age Proboscidea (mammoths, mastodons, and elephants). UCMP locality V-3915 on Oswald Road, approximately 7 miles northwest of the project area, yielded remains from a Pleistocene-age bison. In addition, UCMP locality PB01018 from the Sutter Energy Center, located approximately 3.5 miles northwest of the project area, yielded fossilized plant remains.

Significant paleontological resources could be present or encountered during ground-disturbing activities. However, potential impacts would be reduced to less than significant with the following mitigation measures.

Mitigation Measure GEO-1. Prepare a Paleontological Resource Monitoring and Mitigation Plan. Prior to ground disturbance, the construction contractor will retain a professional paleontologist to develop a Paleontological Resource Monitoring and Mitigation Plan (PRMMP). The PRMMP will identify the areas where significant paleontological resources may be encountered and the depths at which those resources are likely to be discovered. The PRMMP will stipulate the frequency of monitoring and other appropriate procedures. It will also detail the significance criteria to be used to determine which resources will be recovered for their data potential, as well as the coordination strategy to provide adequate monitoring. The PRMMP will detail methods of recovery, postexcavation preparation and analysis of specimens, final curation of specimens at an accredited facility, data analysis, and reporting. The PRMMP will specify that all paleontological work will be conducted by qualified professionals trained in the identification and salvage of paleontological remains so that they will be quickly and professionally recovered while not impeding project development. At the end of the monitoring effort, a report of findings will be prepared by the professional paleontologist to document the results of monitoring. Implementation of a PRMMP will serve to permanently preserve any paleontological resources encountered, and impacts will be reduced to less than significant.

Mitigation Measure GEO-2. Conduct Worker Environmental Awareness Training. Prior to the initiation of construction or ground-disturbing activities, the construction contractor will retain a professional paleontologist to develop and present a Worker Environmental Awareness Training (WEAT) module for paleontological resources. All construction personnel will be trained via the WEAT module regarding the recognition of possible buried paleontological resources and protection of paleontological resources during construction. The WEAT module will also inform construction personnel of the procedures to be followed if paleontological resources are encountered. All personnel will be instructed that unauthorized collection or disturbance of fossils is unlawful.

3.8 Greenhouse Gas Emissions

Greenhouse Gas Emissions Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b. Conflict with any applicable plan, policy, or regulation adopted to reduce GHG emissions?	☐	☐	☐	☒

3.8.1 Setting

GHGs include both naturally occurring and anthropogenic gases that trap heat in the earth's atmosphere. GHGs known to contribute significantly to climate change include the following:

- Carbon dioxide (CO_2)
- Methane
- Nitrous oxide
- Hydro-chlorofluorocarbons
- Perfluorocarbons
- Sulfur hexafluoride

The County has developed a CAP (2010) to achieve emission reduction goals outlined by Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32). AB 32 required CARB to implement rules and regulations that would achieve GHG emissions equivalent to 1990 statewide levels by 2020.

In California, transportation sources compose the largest category of GHG-emitting sources. In 2017, the annual California statewide GHG emissions were 424 million metric tons of CO_2-equivalent (CO_2e). The transportation sector accounts for about 40% of the statewide GHG emissions inventory. The industrial sector accounts for about 21% of the statewide GHG emissions inventory (CARB 2019a). The dominant GHG emitted is CO_2, primarily from fossil fuel combustion (approximately 83% of the total inventory) (CARB 2019b).

The FRAQMD has not established Thresholds of Significance for GHG and recommends that local agencies use criteria specified in the California Air Pollution Control Officers Association's (CAPCOA's) white paper *CEQA & Climate Change* (CAPCOA 2008).

3.8.2 Impact Analysis

a) Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

LESS THAN SIGNIFICANT IMPACT. Generation of GHG emissions would only result from short-term construction activities, vehicle traffic during construction, and the removal of trees and vegetation as needed. Because the project is an underground pipeline and would not generate any additional GHG emissions during operation, impacts would be less than significant.

b) Would the project conflict with any applicable plan, policy, or regulation adopted to reduce GHG emissions?

NO IMPACT. The FRAQMD has not established any Thresholds of Significance for GHG emissions, and because the project is an underground pipeline and is not anticipated to conflict with the CAP (County 2011), there would be no impact.

3.9 Hazards and Hazardous Materials

Hazards and Hazardous Materials Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c. Emit hazardous emissions or require the handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	☐	☐	☒	☐
d. Be located on a site included on a list of hazardous materials sites compiled pursuant to California Government Code Section 65962.5; and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. For a project located within an airport land use plan, or where such a plan has not been adopted, within 2 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?	☐	☐	☐	☒
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☐	☒

3.9.1 Setting

The project area is located near agricultural and former agricultural land (Shanghai Bend subdivision) with potential hazardous materials typically used in farming, such as pesticides and herbicides. Riverbend Elementary School is located near the pipeline alignment on Garden Highway. Two private airstrips are located within a 2-mile radius: Yuba County Airport and Sutter County Airport.

3.9.2 Impact Analysis

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

LESS THAN SIGNIFICANT. During construction, routine hazardous materials, such as oil, gas, and diesel fuel from construction equipment, would be used and transported throughout the project area. There would be little to no hazardous materials used for the project once construction is complete. The *Sutter County General Plan Policy Document* requires that use and disposal of hazardous waste and materials comply with regulations from numerous agencies, including the California Department of Toxic Substances Control (DTSC), the U.S. Environmental Protection Agency (EPA), and California Occupational Safety and Health Administration (Cal-OSHA) (County 2011). The County's *Hazardous Materials Area Plan* (2016) describes roles and responsibilities of federal, state, and local agencies during a hazardous materials incident.

Pursuant to these requirements, the City and its construction contractor will prepare a spill prevention, control, and countermeasures plan for construction and, as needed, for project operations. Compliance with regulatory requirements would reduce potential impacts associated with the use, transport, and disposal of hazardous materials to less than significant.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. An investigation into the EnviroStor and GeoTracker databases was performed and did not identify any operating or closed hazardous materials cleanup sites within the project area (DTSC 2020). Therefore, project construction would not create a hazard through upset or accident involving the release of hazardous materials from a known site. However, the public or environment may be exposed to the release of hazardous materials from an unknown site. Therefore, this would be a potentially significant impact.

If unexpected hazardous materials are encountered or suspected, Mitigation Measures HAZ-1 will be implemented as needed to determine the extent and nature of the contamination. Contaminated material will be removed and disposed according to applicable federal, state, and local regulations. Therefore, with implementation of Mitigation Measure HAZ-1, project construction impacts from unknown hazardous materials resulting in hazards to the public or environment would be less than significant.

Mitigation Measure HAZ-1. Perform a Phase II Environmental Site Assessment as needed prior to construction; and remediate, control, or dispose of contaminated materials as appropriate. Where unexpected contamination is encountered or suspected, sampling will be included as part of a Phase II Environmental Site Assessment, as appropriate, and recommendations for reducing or eliminating the mechanisms of contamination will be provided. Recommendations may include removing the contaminated soil and disposing of it at a licensed facility in accordance with all regulations.

c) Would the project emit hazardous emissions or require the handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

LESS THAN SIGNIFICANT IMPACT. The project is near the Riverbend Elementary School, which is located at the intersection of Stewart Road and Garden Highway. Installing the pipeline along Garden Highway would include the use of hazardous materials as described in a) this list and localized air pollutants as described in Section 3.3, *Air Quality* (list item [d]). For the reasons described in these other sections, impacts would be less than significant.

d) Would the project be located on a site included on a list of hazardous materials sites compiled pursuant to California Government Code Section 65962.5; and, as a result, would it create a significant hazard to the public or the environment?

NO IMPACT. The project is not included on the list compiled pursuant to Government Code Section 65962.5; therefore, there would be no impact.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

NO IMPACT. There are two airports within 2 miles of the project area: Sutter County Airport and Yuba County Airport. The Sacramento Area Council of Governments (SACOG) created an Airport Comprehensive Land Use Plan (ACLUP) for the counties of Yuba and Sutter to promote land use compatibility around airports and prevent public exposure to excessive noise and safety hazards around public airports (County 1994). There would be no impact associated with the underground pipeline. Vertical structures would be limited to the bifurcation station enclosure and the vacuum siphon primer system building. The low profile of these structures would not conflict with the airport land use compatibility plan; therefore, there would be no impact.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

LESS THAN SIGNIFICANT IMPACT. Garden Highway is a route for evacuation in Zone 10 in the County evacuation map and Zone 5 in the Yuba City evacuation map. During construction along Garden Highway, a traffic control plan (TCP) (Section 3.17 in this document provides details) will be implemented and shared with local responders. In the case of an emergency evacuation, emergency workers would cover open pipeline trench areas with trench plates so Garden Highway would be reopened to two lanes. Therefore, this impact would be less than significant.

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

NO IMPACT. Northern portions of the project area along the levee are designated as having a moderate fire risk, with fire response provided by a local agency (in this case, the City) (CAL FIRE 2007). The project is mostly an underground pipeline and would not expose people or structures to a significant risk involving wildland fires; therefore, there would be no impact.

3.10 Hydrology and Water Quality

Hydrology and Water Quality Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements (WDRs) or otherwise substantially degrade surface water or groundwater quality?	☐	☐	☒	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial erosion or siltation onsite or offsite	☐	☐	☒	☐
ii) Substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite	☐	☐	☐	☒
iii) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff	☐	☐	☐	☒
iv) Impede or redirect flood flows	☐	☐	☒	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

3.10.1 Setting

The DWR-operated State Water Project regulates Feather River flows for water supply and flood control through releases at Oroville Dam. The Federal Emergency Management Agency (FEMA) Flood Map Service Center has designated the project area as Zone X and Zone AE areas of flood hazard. Zone X in this area is defined as a 0.2% annual chance flood hazard and Zone AE is categorized as a special flood hazard area (FEMA 2019).

3.10.2 Impact Analysis

a) Would the project violate any water quality standards or WDRs or otherwise substantially degrade surface water or groundwater quality?

LESS THAN SIGNIFICANT IMPACT. A construction general permit and SWPPP will be implemented during construction. The discharge of effluent through the outfall and diffuser structure would be consistent with the most recent permit issued by the Central Valley RWQCB in Order R5-2019-0017, National Pollutant Discharge Elimination System (NPDES) Permit CA0079260 (order and permit). Therefore, the impact would be less than significant.

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

NO IMPACT. The project would not decrease groundwater supplies or interfere with groundwater recharge due to the pipeline being located underground within earthen soil. The bifurcation station and vacuum primer system are concrete structures that do not impose a significant threat to sustainable groundwater management; therefore, there would be no impact.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would:

i) Result in substantial erosion or siltation onsite or offsite

LESS THAN SIGNIFICANT IMPACT. The project will implement a SWPPP and comply with a construction general permit that would result in minimal erosion or siltation from the construction of the project and would result in a less than significant impact.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite

NO IMPACT. The project is not creating any new substantial impervious surfaces and would not increase surface runoff due to the pipeline being installed underground surrounded by earthen soil. Therefore, there would be no impact.

iii) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff

NO IMPACT. The project would not create or contribute to substantial additional sources of polluted runoff due to the pipeline being installed underground surrounded by earthen soil; therefore, there would be no impact.

iv) Impede or redirect flood flows?

LESS THAN SIGNIFICANT IMPACT. The outfall and diffuser pipeline would be installed within the Feather River. Given the wide floodplain area—0.9 miles between the West and East Levees—any potential changes in local river hydraulics due to the diffuser structure are expected to be minor such that Feather River flows would not be impeded or redirected. A scour analysis prepared for the project showed no material difference in water surface elevations with and without the project (Jacobs Engineering Group, Inc., 2021). Therefore, impacts would be less than significant.

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

LESS THAN SIGNIFICANT IMPACT. Project construction would occur in areas that have been previously disturbed by residential, agricultural, and transportation uses. The project area is located in an annual chance flood hazard of 0.2 to 1%, with average depth less than 1 foot, or with drainage areas of less than 1 square mile (Zone X). The outfall

portion of the project that crosses through the levee and into Feather River is a regulatory floodway in a special flood hazard area (Zone AE). City staff operating the WWTF monitor and control discharges consistent with the NPDES permit and order. Therefore, the project would not substantially risk release of pollutants from flood hazards.

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

LESS THAN SIGNIFICANT IMPACT. The project has been designed to meet water quality objectives under the *Basin Plan for the Sacramento River and San Joaquin River Basins* (Central Valley RWQCB 2018), the order and permit, and CWA Section 303(d). The City is in accordance with the order and permit and has developed water quality-based effluent limits (WQBELs) that are consistent with the applicable CWA Section 303(d) listings and total maximum daily loads (TMDLs).

The project would be located underground and would comply with all applicable water quality control objectives; therefore, the project would not obstruct or conflict with a water quality control plan or sustainable groundwater management plan. This impact would be less than significant.

3.11 Land Use and Planning

Land Use and Planning Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Physically divide an established community?	☐	☐	☐	☒
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted to avoid or mitigate an environmental effect?	☐	☐	☒	☐

3.11.1 Setting

The northern portion of the project begins in Yuba City behind the Shanghai Bend subdivision and continues south into Sutter County. The project area is designated as Parks, Recreation, and Open Space in the *Yuba City General Plan* (City 2004) and Parks and Recreation, Agriculture, and Ranchette land uses in the *Sutter County General Plan Policy Document* (County 2011). Surrounding land use designations include:

- Low-density residential
- Rural
- Public
- Semi-public elementary and middle school

Riverbend Elementary School is located at the intersection of Stewart Road and Garden Highway.

3.11.2 Impact Analysis

a) Would the project physically divide an established community?

NO IMPACT. The project would be located underground and run adjacent to the Yuba City Shanghai Bend subdivision and throughout rural agricultural areas within Sutter County. Therefore, the project would not physically divide an established community, and there would be no impact.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted to avoid or mitigate an environmental effect?

LESS THAN SIGNIFICANT IMPACT. The project would be consistent with the Parks and Recreation, Agriculture, and Ranchette land use designations in the project area. The small bifurcation structure would not conflict with the passive open space area designated by the *Yuba City General Plan*. The *Sutter County General Plan Policy Document's* main goal is to conserve the extensive agricultural and rural areas from growth and new development. While the project includes temporary and permanent impacts to agricultural lands, the net community benefit would outweigh the need for protection consistent with policy *AG 1.5 Agricultural Land Conversion* listed in the *Sutter County General Plan Policy Document* (County 2011). Compliance with applicable land use plan, policies, and regulations would result in a less than significant impact.

3.12 Mineral Resources

Mineral Resources Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

3.12.1 Setting

The project is located in a previously ground-disturbed area that is currently used as agricultural farmland and state highway. The County is known to mine construction aggregate and has four active mining operations that are open-pit type or surface mines throughout Sutter County (County 2011). The closest known mine to the project area was the O'Conner Lakes Borrow Pit (mine ID 91-51-0009); the mine was located approximately 1 mile south of the outfall and was closed in 2012 (CGS 2020b).

The project area is not within a state-designated Mineral Resources Zone (MRZ) (CGS 2015b).

3.12.2 Impact Analysis

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

NO IMPACT. The project is not within a known mineral resources area and would not result in the loss of mineral resource value to the region or to the residents of the state; therefore, there would be no impact.

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

NO IMPACT. The State of California Division of Mines and Geology does not list the project area as having any locally important mineral resource recovery sites and is not within an established mineral resource zone (CGS 2015b); therefore, there would be no impact.

3.13 Noise

Noise Resources Checklist

Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐
b. Generation of excessive ground-borne vibration or ground-borne noise levels?	☐	☐	☐	☒
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 2 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?	☐	☐	☐	☒

3.13.1 Setting

The closest sensitive noise receptors in the project area are the Shanghai Bend subdivision, rural residents, and Riverbend Elementary School. The Yuba City noise ordinance (Yuba City Municipal Code Chapter 17, Noise Regulations) prohibits construction activity before 6:00 a.m. or after 9:00 p.m. daily except on Sundays and state or federal holidays when the prohibited time is before 8:00 a.m. If the project is within urgent necessity or in the interest of public health and safety, the Chief Building Official may issue a permit for exemption that will not exceed 3 working days (City 2019).

The County noise ordinance states that construction within 1,000 feet of noise-sensitive uses (residential, daycares, schools, convalescent homes, and medical care facilities) is limited to daytime hours between 7:00 a.m. and 6:00 p.m. on weekdays, and 8:00 a.m. and 5:00 p.m. on Saturdays, and is prohibited on Sundays and holidays unless permission has been granted by the County (County 2019).

3.13.2 Impact Analysis

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?

LESS THAN SIGNIFICANT IMPACT. Construction activities would occur between the hours allowed under the City's noise ordinance and would not be expected to disturb residents. However, a temporary noise nuisance, limited to a few hours during a single night, would occur near the Shanghai Bend subdivision while construction workers hot tap into the existing pipeline at the bifurcation station. A permit would be obtained from the City's Chief Building Official to conduct this work, as it would occur outside the hours allowed under the City's noise ordinance. No pile driving would take place near sensitive uses.

There would be no noise associated with operation of the bifurcation station, as the feature would not require any motors or other noise-producing mechanisms that would impact the nearby subdivision. The surge control system and the vacuum priming system are passive features that would generate little noise, and there are noise-sensitive receptors close to these project features.

Compliance with the City's noise ordinance and permit conditions would result in a less than significant impact.

b) Generation of excessive ground-borne vibration or ground-borne noise levels?

NO IMPACT. Potential sources of ground-borne noise and vibration include pile driving that would be used to install portions of the diffuser structure within the Feather River. However, as there are no noise- or vibration-sensitive receptors in this area, there would be no impact.

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 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

NO IMPACT. While the project area is located within a 2-mile range of the Yuba City Airport and Sutter County Airport, the project does not include new residential or commercial development that would be exposed to airport noise. Therefore, there would be no impact.

3.14 Population and Housing

Population and Housing Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	☒
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.14.1 Setting

The project is located alongside Feather River and Garden Highway. Near the project area is the Shanghai Bend subdivision, Riverbend Elementary School, and farmland.

3.14.2 Impact Analysis

a) Would the project 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)?

NO IMPACT. The purpose of the project is to improve a deficiency in the effluent pipeline and would restore the WWTF's discharge capacity. The project would not expand the capacity of the WWTF itself. For this reason, the project would not induce population growth or expand capacity of new homes, businesses, roads, or infrastructure; therefore, there would be no impact.

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

NO IMPACT. The project area runs adjacent on the backside of the Shanghai Bend subdivision and through rural lands along Garden Highway and would not displace people or housing; therefore, there would be no impact.

3.15 Public Services

Public Services Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, needed to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
a. Fire protection?	☐	☐	☒	☐
b. Police protection?	☐	☐	☒	☐
c. Schools?	☐	☐	☐	☒
d. Parks?	☐	☐	☐	☒
e. Other public facilities?	☐	☐	☐	☒

3.15.1 Setting

Public services and facilities are provided and maintained by City and County entities, including fire, police, and public works.

3.15.2 Impact Analysis

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

a) Fire protection?

LESS THAN SIGNIFICANT IMPACT. Construction and operation of the project would not increase the demand for fire protection services in the project area. If an emergency were to occur during construction, all potential impacts that could affect emergency response times, such as lane closures along Garden Highway, would be coordinated with local emergency service providers. Therefore, this impact would be less than significant.

b) Police protection?

LESS THAN SIGNIFICANT IMPACT. Emergencies could occur during project construction; however, the project would not increase population and is not expected to affect crime rates in the vicinity. If emergencies were to occur at the project site or during construction, local authorities (Yuba City Police Department and Sutter County Sheriff Office) would be contacted. Therefore, this impact would be less than significant.

c) Schools?

NO IMPACT. The project would not generate additional population or students during construction or operation; therefore, there would be no impact.

d) Parks?

NO IMPACT. The project would not increase the use of existing neighborhood and regional parks or other recreation facilities; therefore, there would be no impact.

e) Other public facilities?

NO IMPACT. The project would not increase population during project construction or operation; therefore, the project would not affect other government services or public facilities and would result in no impact.

3.16 Recreation

Recreation Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

3.16.1 Setting

The northern project area, including the bifurcation station, is located along Shanghai Bend Road, which is used as an access road and parking area for Feather River recreation, such as fishing and walking. No other parts of the project area are used for recreation.

3.16.2 Impact Analysis

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?

NO IMPACT. The project is an underground pipeline and would not increase the use of existing neighborhood and regional parks or other recreational facilities; therefore, there would be no impact.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

NO IMPACT. The project is an underground pipeline that would be located mainly along Garden Highway and agricultural lands, which would not expand capacity or the need to construct or expand recreational facilities. Therefore, there would be no impact.

3.17 Transportation

Transportation Checklist

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

3.17.1 Setting

Portions of the project area are accessible to public use, such as the access road (parking lot) used for recreational activities. The project area is located along Garden Highway and Levee Road and is accessible via Shanghai Bend Road. Nearby roadways include Stewart Road, Barry Road, and residential roads located to the east of the Levee Road near Shanghai Bend.

3.17.2 Impact Analysis

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

LESS THAN SIGNIFICANT IMPACT. The project is an underground pipeline structure that would be constructed along Garden Highway. The project would temporarily use existing roadways, such as Garden Highway and potential nearby roadways, for transporting construction equipment and materials accessing the project site. Most construction traffic would occur along Garden Highway and Shanghai Bend Road. Construction activities would generate a negligible amount of traffic and material deliveries during construction hours.

The County has agreed to allow full temporary closure of Garden Highway during pipeline installation and use of temporary traffic detours. This would reduce construction concerns associated with one open travel lane, such as limited space for pipe installation within the existing road ROW, slower installation production rates, and potential travel limitations for wide farm equipment through the temporary traffic lane. Open trenches in Garden Highway of 500 feet are acceptable, provided all trenches in the public ROW are either properly backfilled or sealed with steel plates at the end of each working day. A County encroachment permit will be required to support the temporary traffic detour. The contractor will prepare and implement a TCP.

Traffic along Garden Highway is typically moderate, and with the temporary road closures and implementation of the TCP, the impact would be less than significant.

b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

LESS THAN SIGNIFICANT IMPACT. Road closures on Garden Highway resulting from construction activities (such as access and material deliveries) would temporarily generate a negligible amount of additional traffic along roadways in the vicinity of the project site. Construction would last approximately 9 months, with portions of the project likely finishing earlier. The project would result in no changes in vehicle miles traveled once construction is complete; therefore, the impact would be less than significant.

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

NO IMPACT. The project would include the installation of approximately 2 miles of new outfall pipeline, which would travel along existing levees and roads. Affected roadways would be repaired and would not create new hazards. Additionally, potential traffic hazards during construction would be addressed by a TCP, to be prepared by the contractor and submitted to the City for review and approval prior to construction. Therefore, there would be no impact.

d) Result in inadequate emergency access?

LESS THAN SIGNIFICANT IMPACT. Access to Garden Highway would not change as a result of the project. The County has agreed to temporarily close Garden Highway during construction, which gives the contractor the option to pursue the temporary full closure or one lane closure. Detour routes for emergency vehicles would be addressed by a TCP, to be prepared by the contractor and submitted to the City for review and approval prior to construction. During operation, emergency vehicles would still be able to access the site and surrounding residences and facilities from Garden Highway, State Route 99, Barry Road, and other local residential roads. Therefore, the impact would be less than significant.

3.18 Tribal Cultural Resources

Tribal Cultural Resources Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC 21074 as either a site, feature, place, or 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:				
a. Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC 5020.1(k)	☐	☐	☒	☐
b. A resource determined by the Lead Agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC 5024.1. In applying the criteria set forth in subdivision (c), the Lead Agency will consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

3.18.1 Setting

Tribal Cultural Resources (TCRs) as defined by PRC Section 21074 are either (1) sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are either on or eligible for inclusion in the CRHR or a local historic register; or (2) a resource that the Lead Agency, at its discretion and supported by substantial evidence, chooses to treat as a TCR. Additionally, a cultural landscape may also qualify as a TCR if it meets the criteria to be eligible for inclusion in the CRHR and is geographically defined in terms of the size and scope of the landscape. Other historical resources (as described in PRC Section 21084.1) including unique archaeological resources (as defined in PRC Section 21083.2(g)), or nonunique archaeological resources (as described in PRC Section 21083.2(h)) may also be TCRs if they conform to the criteria to be eligible for inclusion in the CRHR.

In addition to the NAHC Sacred Lands File records search requested on December 5, 2018, a request for Native American Tribal contacts was also included. The NAHC responded on December 6, 2018, stating that a review of the Sacred Lands

File Search was conducted, and Native American cultural resources may have been reported within the project area; the NAHC recommended contacting the United Auburn Indian Community of the Auburn Rancheria (UAIC) for more information. Additionally, a list of Native American Tribal contacts interested in consulting on development projects was also provided at this time.

A second NAHC Sacred Lands File records search and Native American Tribal contacts was requested on April 19, 2019, as well. The NAHC responded on April 23, 2019, stating that results of the Sacred Lands File Search were negative. A revised list of Native American tribes was also included.

Each individual and group provided in December 2018 and April 2019, in addition to the City's list of tribes, was contacted on June 5, 2019, in compliance with AB 52 (PRC Section 21080.3.1). The City received a response from the UAIC; no other comments were received, and the closing date for requesting participation to consult was July 12, 2019.

3.18.2 Impact Analysis

a) Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC 5020.1(k)

LESS THAN SIGNIFICANT IMPACT. As described in Section 3.5.2 (a), the Feather River West Levee has been evaluated previously by architectural historians and has been recommended as eligible for listing on the NRHP under Criterion A, and under the CRHR under Criterion 1 under the theme of flood control. The project includes a pipeline crossing of the levee, but it would not result in permanent changes to the character-defining features; integrity of the levee (including its overall design and form); or the materials, workmanship, and general physical characteristics that convey the historical significance of the levee. Further, the levee would not be physically modified by the narrow pipeline crossing, and the levee would continue to serve its intended purpose within the context of flood control. Therefore, impacts would be less than significant.

b) A resource determined by the Lead Agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC 5024.1. In applying the criteria set forth in subdivision (c) of PRC 5024.1, the Lead Agency will consider the significance of the resource to a California Native American tribe.

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. AB 52 requires lead agencies to conduct formal consultations with California Native American tribes during the CEQA process to identify TCR that may be subject to significant impacts by a project. Where a project may have a significant impact on TCR, the Lead Agency's environmental document must discuss the impact and whether feasible alternatives or mitigation measures could avoid or substantially lessen the impact. This consultation requirement applies only if the tribes have sent written requests for notification of projects to the Lead Agency.

At the time of the preparation of this Initial Study, consultation is ongoing with UAIC. The tribe has indicated via email correspondence from December 18, 2019, that, based on the culturally sensitive location of the project, there is a moderate to high potential for the presence of subsurface cultural deposits to be present or uncovered during construction and they recommended adoption of mitigation measures. The City agrees that the impact may be significant, and that impacts would be reduced to less than significant by implementing the mitigation measures recommended by UAIC.

Mitigation Measure TCR-1. Ground Disturbance. A minimum of 7 days prior to beginning earthwork, clearing and grubbing, or other soil disturbing activities, the City will contact UAIC with the proposed earthwork start-date. A UAIC Tribal Representative or Tribal Monitor will be invited to inspect the project site, including any soil piles, trenches, or other disturbed areas, within the first 5 days of groundbreaking activity. During this inspection, a UAIC Tribal Representative or Tribal Monitor may provide an on-site meeting for construction personnel information on TCRs and workers awareness brochure.

If any TCRs are encountered during this initial inspection, or during any subsequent construction activities, work will be suspended within 100 feet of the find and measures included in Mitigation Measure TCR-2, Unanticipated Discoveries, will be implemented. Preservation in place is the preferred alternative under CEQA and UAIC protocols, and every effort will be made to preserve the resources in place.

The contractor will implement any measures deemed by the City to be necessary and feasible to preserve in place, avoid, or minimize significant effects to the resources, including the use of a paid Native American Monitor during ground disturbing activities.

Mitigation Measure TCR-2. Inadvertent Discoveries. If any suspected TCRs are discovered during ground disturbing construction activities, all work will stop within 100 feet of the find, or an agreed upon distance based on the project area and nature of the find. A Tribal Representative from a California Native American Tribe that is traditionally and culturally affiliated with a geographic area will be immediately notified and shall determine if the find is a TCR. The Tribal Representative will make recommendations for further evaluation and treatment as necessary.

Preservation in place is the preferred alternative under CEQA and UAIC protocols, and every effort will be made to preserve the resources in place. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, returning objects to a location within the project area where they will not be subject to future impacts. UAIC does not consider curation of TCRs to be appropriate or respectful and request that materials not be permanently curated, unless approved by UAIC.

The contractor will implement any measures deemed by the CEQA lead agency to be necessary and feasible to preserve in place, avoid, or minimize impacts to the resource, including but limited to, facilitating the appropriate tribal treatment of the find, as necessary. Treatment that preserves or restores the cultural character and integrity of a Tribal Cultural Resource may include Tribal monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil.

Work at the discovery location cannot resume until all necessary investigation and evaluation of the discovery under the requirements of CEQA, including AB 523, has been satisfied.

3.19 Utilities and Service Systems

Utilities and Service Systems Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☐	☒
c. Result in a determination by the wastewater treatment provider that 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?	☐	☐	☐	☒
d. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

3.19.1 Setting

The project is in mostly rural areas with some existing utility infrastructure. Other than the existing outfall pipeline at the northern end of the pipeline, there are no water or wastewater pipelines in the project area. There are no storm drain pipelines along Garden Highway as storm drainage is conveyed by roadside ditches. PG&E has a large overhead powerline and AT&T Communications (AT&T) has fiber optic lines within the Garden Highway portion of a pipeline alignment. No utilities have been identified along the levee toe.

3.19.2 Impact Analysis

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

LESS THAN SIGNIFICANT IMPACT. The outfall pipeline has been designed to avoid interruption or relocation of known utilities as described in this section; therefore, impacts would be less than significant.

PG&E

Construction of the project would not interfere with current utilities and would not require relocation or new construction of utilities. PG&E provides gas services in the Shanghai Bend subdivision, along Stewart Road, Barry Road, and Oswald Road. If other underground facilities are discovered to be in the project area, Underground Service Alert will need to be contacted before construction excavation. No utility conflicts with PG&E gas distribution have been identified.

A 115-kilovolt (kV) electrical transmission line owned by PG&E runs east to west, just south of Barry Road and north of Oswald Road. The electrical transmission line crosses the Feather River near the southernmost effluent disposal pond on the eastern bank. The outfall pipeline would cross underneath this line.

PG&E also has a 12-kV overhead electrical distribution line that runs parallel to Garden Highway on the western side, from the city limits in the north to Barry Road, where it crosses to the eastern side of Garden Highway. The distribution line remains on the eastern side, paralleling Garden Highway, for several miles outside the project limits. The project has been designed to remain on the opposite side of Garden Highway to avoid conflicts with the electrical distribution line.

AT&T

AT&T has an abandoned underground cable that parallels Garden Highway on the eastern side, from the city limits in the north to Stewart Road, where it crosses to the western side of Garden Highway and runs parallel until outside the project limits.

Two aerial copper cables parallel Garden Highway on the western side, from the city limits in the north to Barry Road. One aerial cable attached to the overhead power poles transitions to underground at Barry Lane, where it crosses to the eastern side of Garden Highway. This underground communication cable parallels Garden Highway on the eastern side before re-emerging from below ground and then is configured as an aerial cable. The aerial cable stays aboveground before returning underground as a direct buried communication cable until it runs outside the project limits. The second aerial communication cable crosses Barry Road overhead and becomes an underground cable. This cable parallels Garden Highway on the western side until it is outside the project limits. The project has been designed to avoid impacts to these cables by maintaining a minimum separation during construction.

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

NO IMPACT. The project is an underground pipeline that would transport and dispose of treated effluent into the Feather River. During construction, water would be used for dust control, but use would be minimal. No water supplies would be needed during operation. Therefore, there would be no impact.

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

NO IMPACT. The project is not increasing capacity at the WWTF; therefore, there would be no impact.

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

LESS THAN SIGNIFICANT IMPACT. During construction, the project would generate a small amount of waste, including asphalt paving removed along Garden Highway. Construction debris would be properly disposed in nearby landfills that have adequate capacity to accept waste generated from construction. The project would not generate solid waste during operation. Impacts to local landfills would, therefore, be less than significant.

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

LESS THAN SIGNIFICANT IMPACT. The project may require disposal of construction debris, but only in small amounts. Construction debris would be disposed of consistently with federal, state, and local regulations. Therefore, impacts would be less than significant.

3.20 Wildfire

Wildfire Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones (VHFHSZ):				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
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?	☐	☐	☐	☒
c. Require the installation or maintenance of associated infrastructure (such as road, 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?	☐	☐	☐	☒

3.20.1 Setting

The California Department of Forestry and Fire's (CAL FIRE's) Fire and Resources Assessment Program provides Fire Hazard Severity Zones Maps that identify VHFHSZs in local, state, or federal responsibility areas. Within these areas, CAL FIRE has designated certain areas as VHFHSZ or Non-VHFHSZ (CAL FIRE 2019a).

CAL FIRE has determined that Sutter County has no VHFHSZs in local, state, or federal responsibility areas (CAL FIRE 2019a, 2019b).

3.20.2 Impact Analysis

a) Impair an adopted emergency response plan or emergency evacuation plan?

NO IMPACT. The project is not located in a state responsibility area or in an area classified as a VHFHSZ; therefore, there would be no impact.

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

NO IMPACT. The project is not located in a state responsibility area or in an area classified as a VHFHSZ; therefore, there would be no impact.

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

NO IMPACT. The project is not located in a state responsibility area or in an area classified as a VHFHSZ; therefore, there would be no impact.

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

NO IMPACT. The project is not located in a state responsibility area or in an area classified as a VHFHSZ; therefore, there would be no impact.

3.21 Mandatory Findings of Significance

Mandatory Findings of Significance Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. 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. Have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☐	☒
c. Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

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

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATION. The project would have effects on fish and wildlife species as described in Section 3.4.3. Impacts to valley elderberry longhorn beetle, Swainson's hawk, migratory birds, and special-status fish would be addressed by implementing Mitigation Measures BIO-1 through BIO-4. With these mitigation measures, all impacts would be reduced to a less-than-significant level such that there would be no substantial degradation of habitat, reduction of populations to below self-sustaining levels, elimination of communities, or reduction in number or restriction of the range of a rare or endangered plant or animal.

Similarly, the project may have effects on unknown archaeological resources that may be disrupted during construction as described in Section 3.5.2. Impacts would be addressed by implementing Mitigation Measures CUL-1, with no potential to 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? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

NO IMPACT. The project area has no other active or foreseeable construction activity. Therefore, project construction would not incrementally contribute to cumulative impacts.

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

LESS THAN SIGNIFICANT IMPACT. The project would have nuisance effects on people from construction activities, including traffic detours and noise. For the reasons described in this Initial Study, all nuisance impacts would be less than significant.

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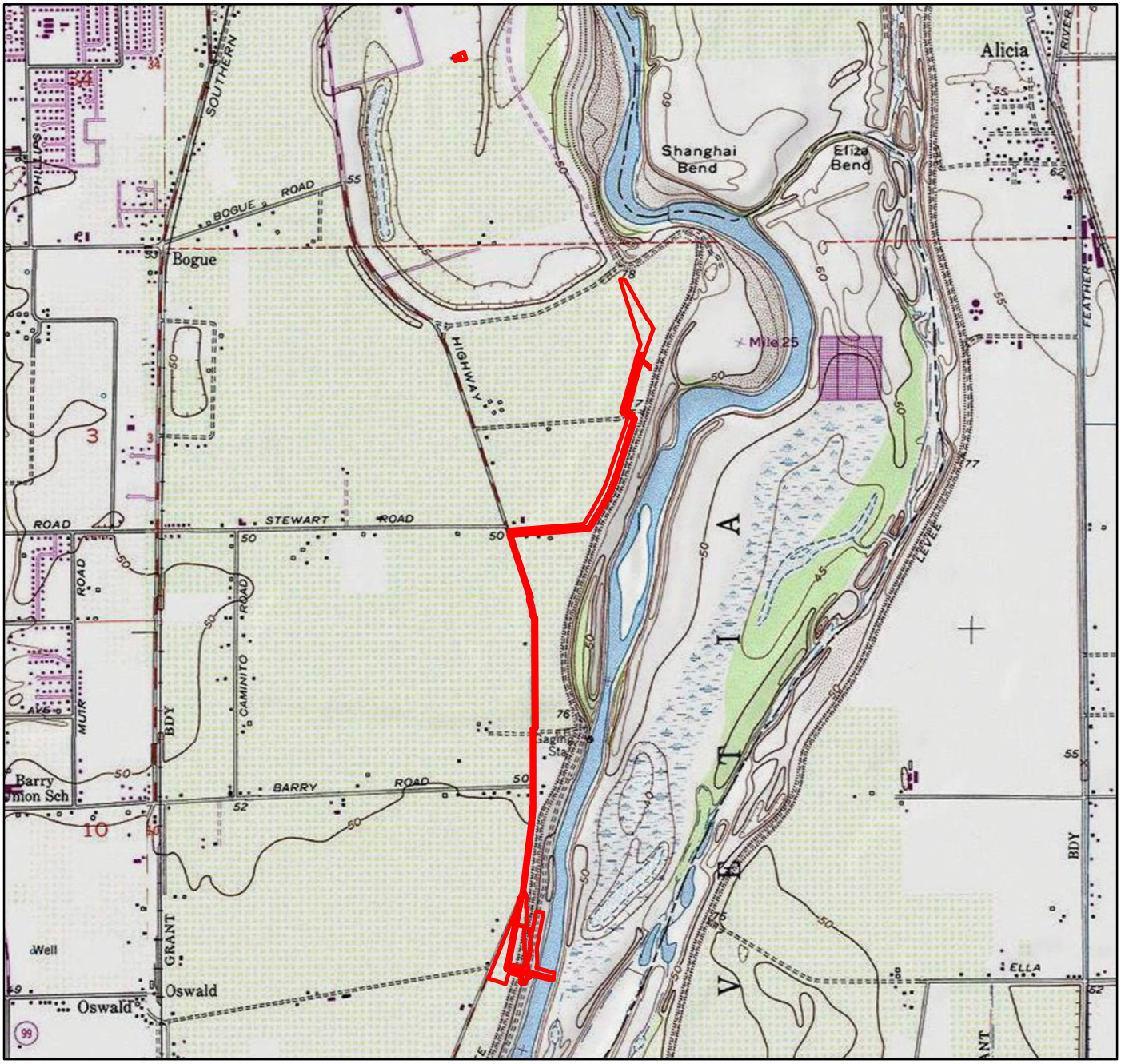
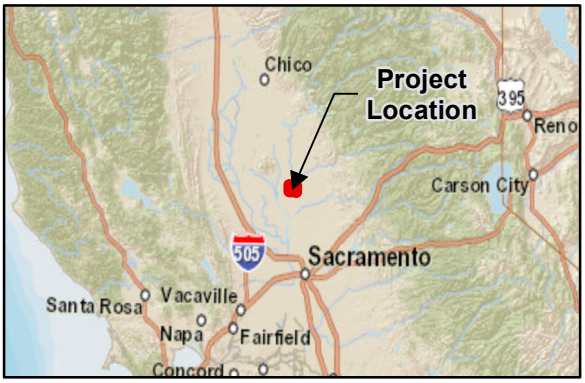
Figures



Project Location

VICINITY MAP



N

0 1,000 2,000

Feet

USGS Quad: Olivehurst
Section: 11 & 14, 35
Township: 14N, 15N
Range: 3E

FIGURE 1
Project Location
WWTF Outfall and Diffuser Project
Yuba City, California

Jacobs

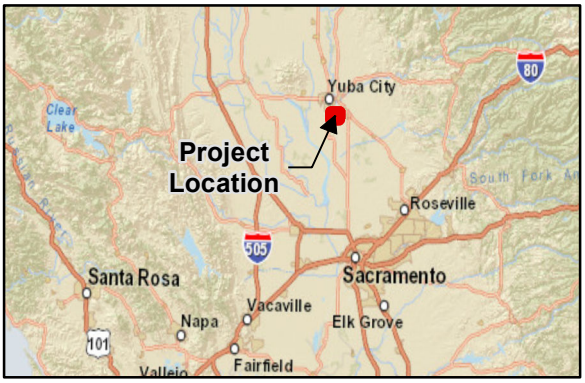
Permanent Impact

- Building
- Above Ground Footprint
- Pipeline Corridor

Temporary Impact

- Temporary Footprint

VICINITY MAP



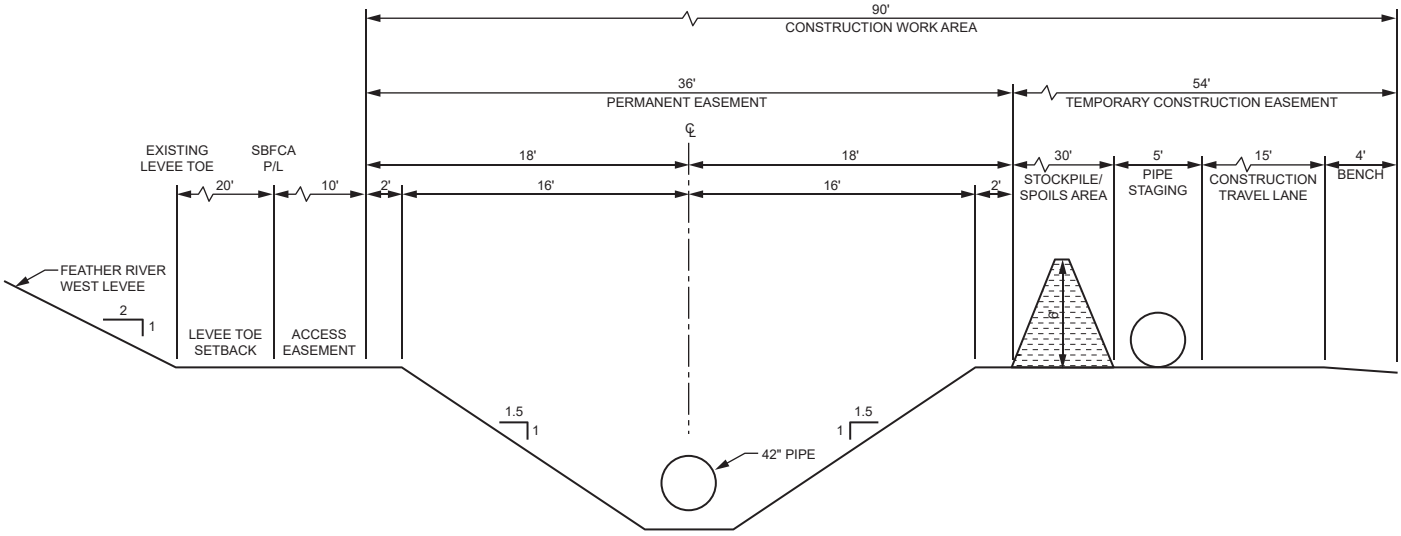
N

0 750 1,500
Feet

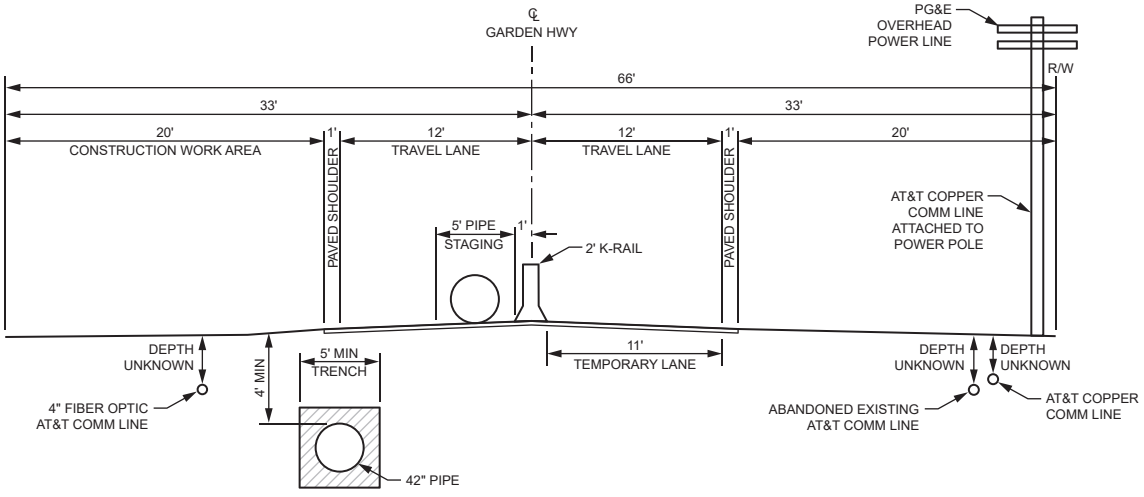
USGS Quad: Olivehurst
Section: 11 & 14, 35
Township: 14N, 15N
Range: 3E

FIGURE 2
Project Features
WWTF Outfall and Diffuser Project
Yuba City, California

Jacobs



STANDARD TRENCH CONSTRUCTION APPROACH



VERTICAL TRENCH CONSTRUCTION APPROACH

FIGURE 3
Trench Construction Approaches
WWTF Outfall and Diffuser Project
Yuba City, California

Appendix A. Design Drawings

PLAN
1" = 40'

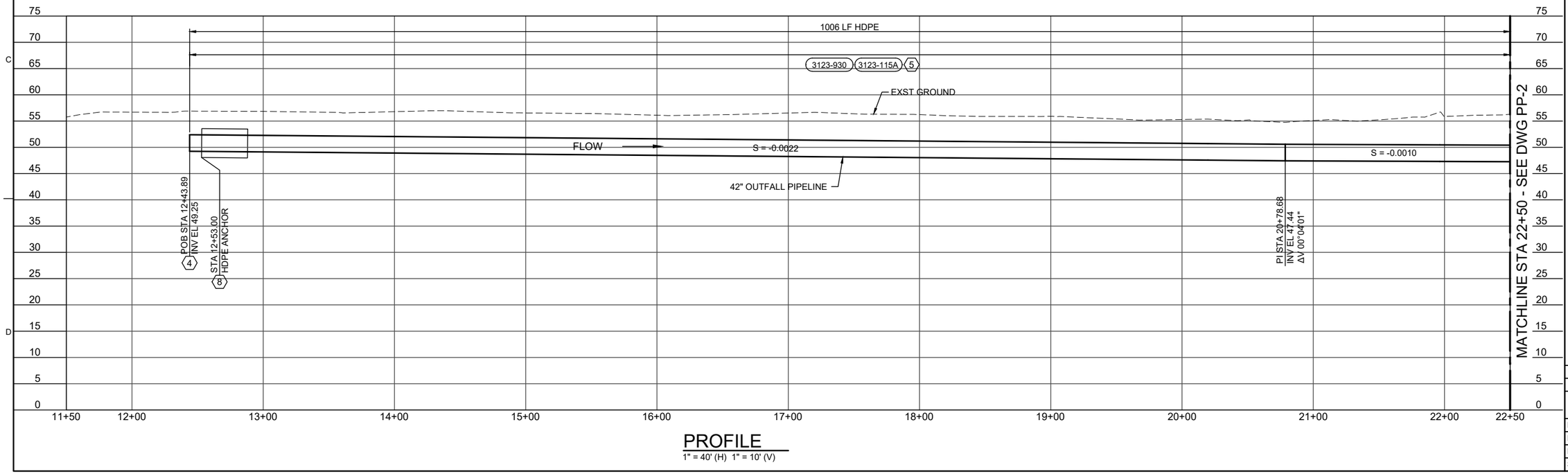
0 40 80 120
1" = 40'

GENERAL NOTES:

1. SEE GENERAL NOTES ON G-13.

KEY NOTES:

1. REPLACE CHAIN LINK FENCE AND GATE REMOVED OR DAMAGED DURING CONSTRUCTION, SEE DET (3231-415).
2. BOREHOLE, SEE GEOTECHNICAL DATA REPORT FOR MORE INFORMATION.
3. POTHOLE OF EXISTING UTILITY, SEE POTHOLE DATA ON DWG G-03.
4. TRANSITION FROM DUCTILE IRON PIPE TO HDPE PIPE, SEE DET 2 ON DWG C-5.
5. SEE DET (3123-115A) FOR TOPSOIL RESTORATION.
6. SEE DET 1 ON DWG C-16 FOR PIPE GATE INSTALLATION.
7. SEE DET 3 ON DWG C-5 FOR BIFURCATION STATION PIPING TIE-IN W/ EXST 30" OUTFALL PIPELINE.
8. SEE DET 2 ON DWG C-5 FOR HDPE ANCHOR. MINIMUM EXTENTS OF ENCASEMENT PER DET 2 ON DWG C-5 SHALL BE FROM STA 12+53 TO 12+88.
9. PROTECT AND PRESERVE EXST FENCE IN PLACE.
10. PIPE MARKER POST, SEE DET (3305-960).
11. HOT TAP FOR BY-PASS. SEE SEQUENCING NOTES ON DWG C-5.



PROFILE
1" = 40' (H) 1" = 10' (V)

JASON J JUNKERT
CA C66415

NOT FOR CONSTRUCTION

NO.	DESGN	DATE	DR	CHK	APVD	BY	REVISION
	B. THOMPSON		J. HESS	J. SMITH	APVD	J. JUNKERT	

CITY OF YUBA CITY
FEATHER RIVER OUTFALL & DIFFUSER PROJECT
YUBA CITY, CALIFORNIA, U.S.A.

JACOBS

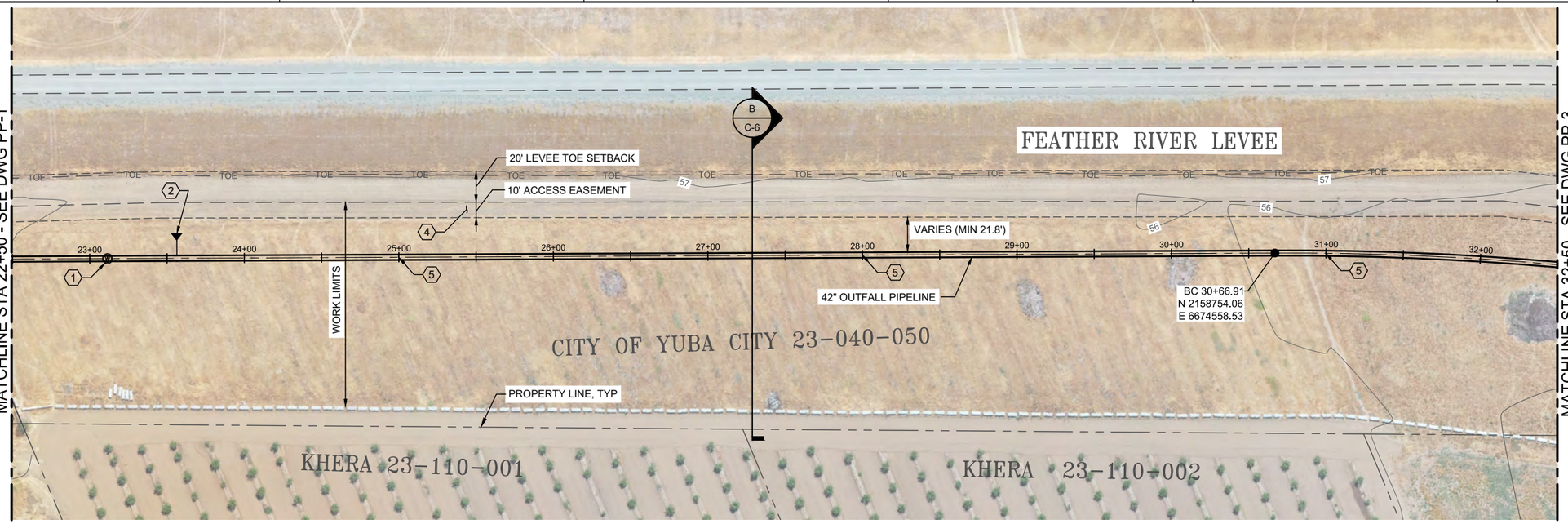
CIVIL

PIPELINE PLAN AND PROFILE
(STA POB 12+28.26 TO 22+50)

AS SHOWN
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	FEBRUARY 2022
PROJ	708865
DWG	PP-1
SHEET	of X

90% DESIGN - NOT FOR CONSTRUCTION



PLAN
1" = 40'

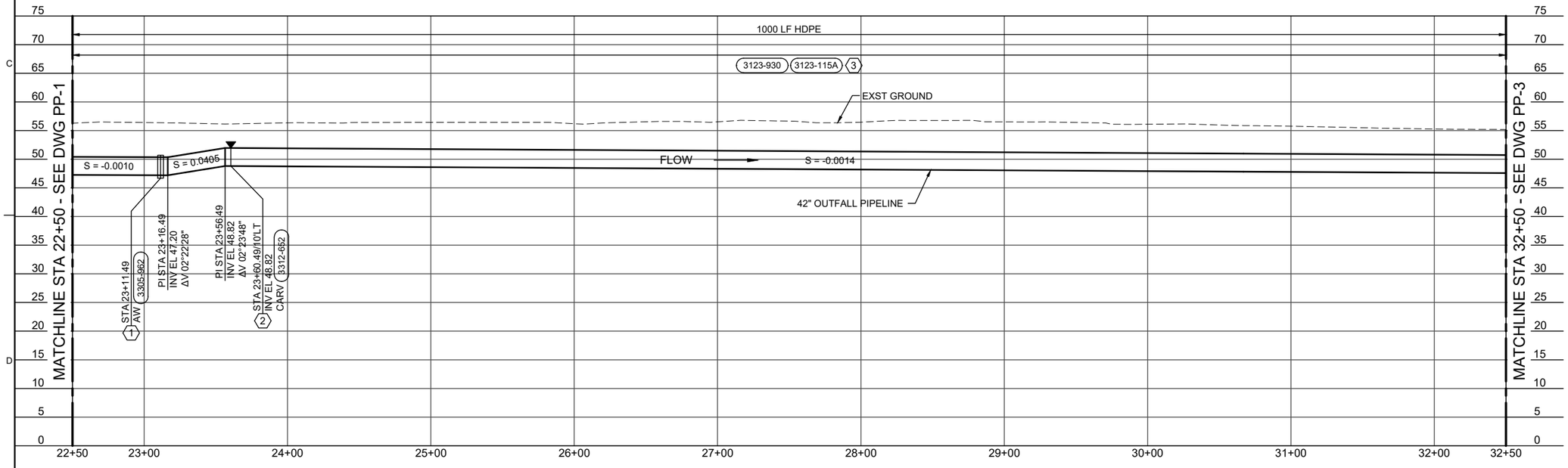
0 40 80 120
1" = 40'

GENERAL NOTES:

1. SEE GENERAL NOTES ON G-13.

KEY NOTES:

1. BURIED ACCESS WAY PER DET 3305-962A.
2. COMBINATION AIR RELEASE VALVE (CARV) PER DET 3312-652.
3. SEE DET 3123-115A FOR TOPSOIL RESTORATION SURFACING.
4. 10' LD-1 ACCESS EASEMENT SHALL BE USED FOR INGRESS/EGRESS ONLY. ACCESS EASEMENT MUST REMAIN ACCESSIBLE DURING CONSTRUCTION ACTIVITES.
5. SEE DET 3305-960 FOR PIPE MARKER POST.



PROFILE
1" = 40' (H) 1" = 10' (V)

JASON J JUNKERT
CA C66415

NOT FOR CONSTRUCTION

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
DSGN	B. THOMPSON		J. HESS	J. SMITH			J. JUNKERT

CITY OF YUBA CITY
FEATHER RIVER OUTFALL & DIFFUSER PROJECT
YUBA CITY, CALIFORNIA, U.S.A.

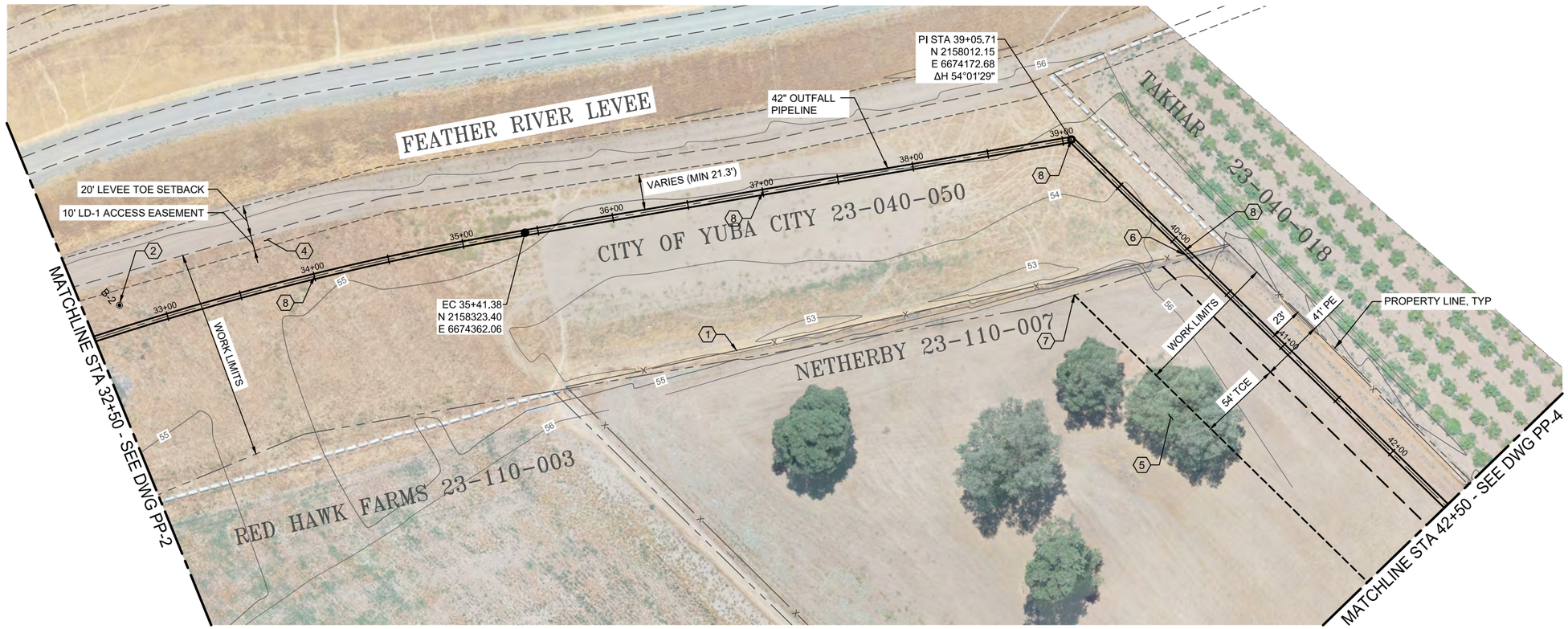
JACOBS

CIVIL
PIPELINE PLAN AND PROFILE
(STA 22+50 TO 32+50)

AS SHOWN
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	FEBRUARY 2022
PROJ	708865
DWG	PP-2
SHEET	of X

90% DESIGN - NOT FOR CONSTRUCTION



PLAN
1" = 40'

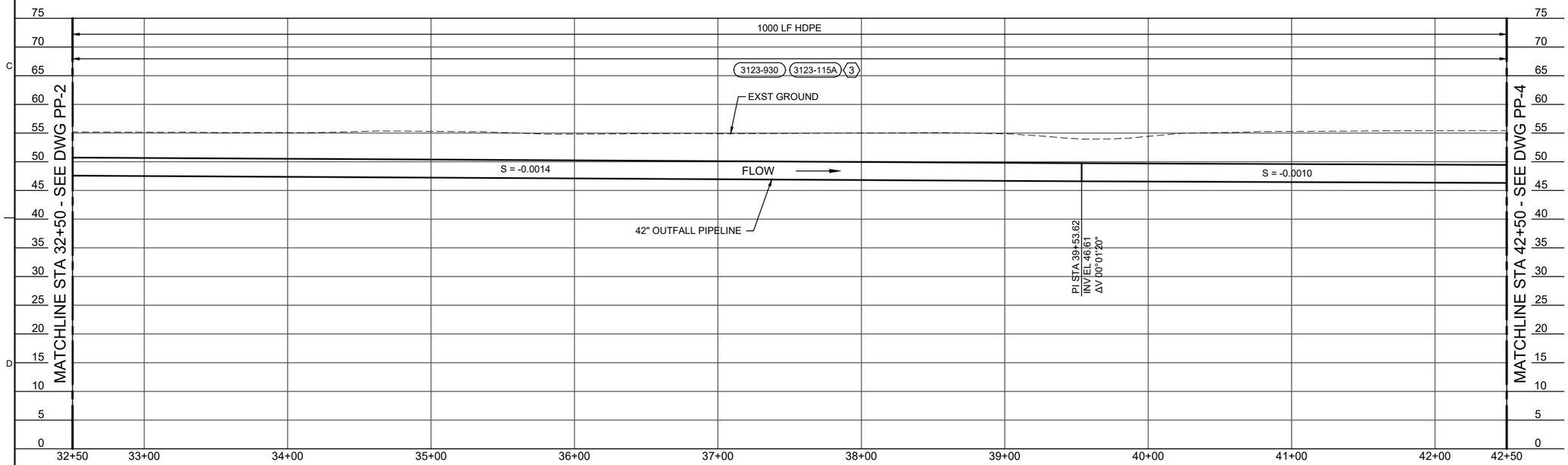
0 40 80 120
1" = 40'

GENERAL NOTES:

1. SEE GENERAL NOTES ON G-13.

KEY NOTES:

1. REPLACE WIRE FIELD FENCE REMOVED OR DAMAGED DURING CONSTRUCTION, SEE DET 3231-455, (SIM).
2. BOREHOLE. SEE GEOTECHNICAL DATA REPORT FOR MORE INFORMATION.
3. SEE DET 3123-115A FOR TOPSOIL RESTORATION SURFACING.
4. 10' LD-1 ACCESS EASEMENT SHALL BE USED FOR INGRESS/EGRESS ONLY. ACCESS EASEMENT MUST REMAIN ACCESSIBLE DURING CONSTRUCTION ACTIVITIES.
5. PRESERVE AND PROTECT EXISTING TREES. INSTALL TEMPORARY FENCING AROUND TREE CANOPY. NO CONSTRUCTION ACTIVITIES OR TRAVELING IS ALLOWED UNDER TREE CANOPY. CONTRACTOR SHALL USE VERTICAL TRENCH SHORING WHEN INSTALLING OUTFALL PIPELINE PARALLEL TO EXISTING TREES.
6. INSTALL 16' WIDE DOUBLE-SWING WIRE GATE WITH GATE POSTS PER MANUFACTURER. CENTER GATE OVER 42" PIPELINE. MATCH EXISTING FENCING MANUFACTURER OR SIMILAR AS APPROVED BY ENGINEER.
7. INSTALL TEMPORARY CONSTRUCTION FENCE ALONG TCE. CONNECT TEMPORARY CONSTRUCTION FENCING TO EXISTING WIRE FIELD FENCE DURING CONSTRUCTION ACTIVITIES. SEE DET 3231-455 AND 3231-456.
8. SEE DET 3305-960 FOR PIPE MARKER POST.



PROFILE
1" = 40' (H) 1" = 10' (V)

JASON J JUNKERT
CA C66415

NOT FOR CONSTRUCTION

NO.	DATE	DSGN	DR	CHK	APVD	BY	APVD
		B. THOMPSON	J. HESS	J. SMITH	J. JUNKERT		

REVISION

CITY OF YUBA CITY
FEATHER RIVER OUTFALL & DIFFUSER PROJECT
YUBA CITY, CALIFORNIA, U.S.A.

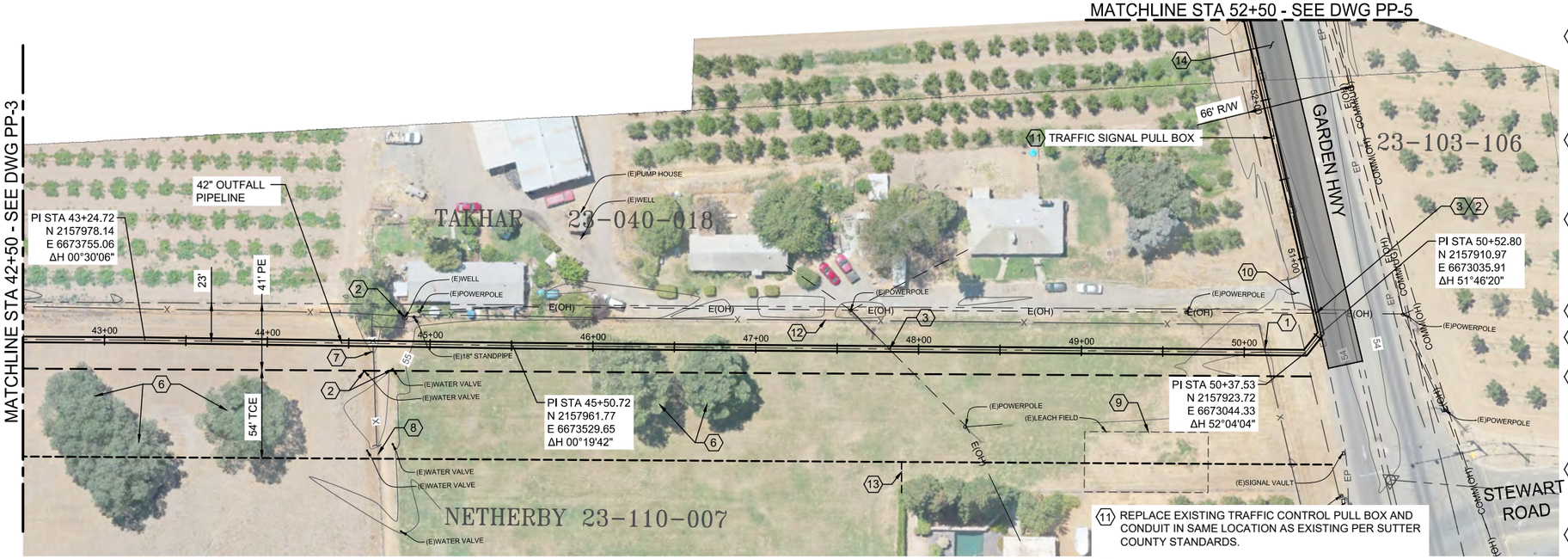
JACOBS

CIVIL
PIPELINE PLAN AND PROFILE
(STA 32+50 TO 42+50)

AS SHOWN
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	FEBRUARY 2022
PROJ	708865
DWG	PP-3
SHEET	of X

90% DESIGN - NOT FOR CONSTRUCTION



GENERAL NOTES:

1. SEE GENERAL NOTES ON G-13.

PLAN

1" = 40'

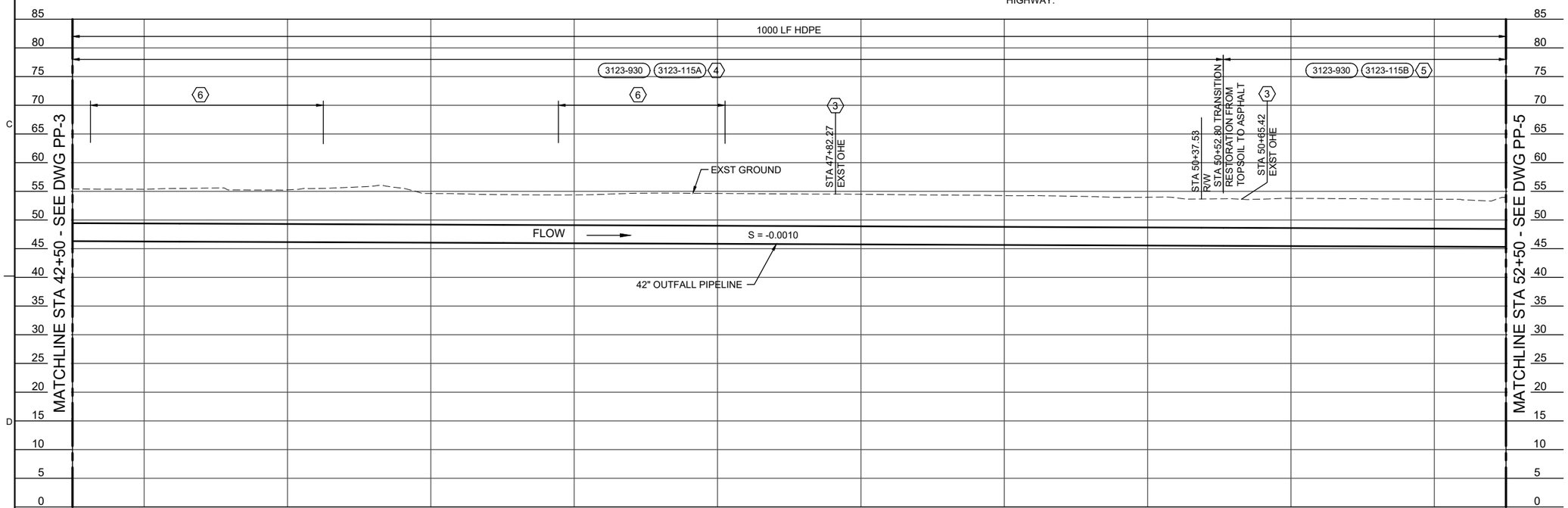
0 40 80 120

1" = 40'

N

KEY NOTES:

1. CONSTRUCTION ACCESS FOR BIFURCATION STATION AND PIPELINE. INSTALL 16' WIDE DOUBLE SWING WIRE GATE WITH GATE POSTS PER MANUFACTURER. MATCH EXISTING FENCING MANUFACTURER OR SIMILAR AS APPROVED BY ENGINEER. REPLACE IN-KIND WIRE FIELD FENCE REMOVED OR DAMAGED DURING CONSTRUCTION, SEE DET 3231-455 (SIM).
2. EXISTING WELL TO BE RELOCATED BEFORE CONSTRUCTION. EXISTING IRRIGATION PIPING AND APPURTENANCES MAY BE ABANDONED. COORDINATE WITH OWNER TO LOCATE ALL EXISTING PIPING AND DETERMINE WHETHER CAN BE REMOVED OR PROTECTED IN PLACE.
3. COORDINATE WITH PG&E FOR CONSTRUCTION UNDER OVERHEAD POWER. MAINTAIN MINIMUM CLEARANCE FROM CONSTRUCTION EQUIPMENT AS REQUIRED BY STATE AND FEDERAL OSHA. NOTE: OVERHEAD COMMUNICATIONS AT LOWER ELEVATION THAN MAIN CONDUCTORS, COORDINATE WITH COMMUNICATIONS PURVEYOR.
4. SEE DET 3123-115A FOR TOPSOIL RESTORATION SURFACING.
5. SEE DET 3123-115B FOR ASPHALT RESTORATION SURFACING.
6. PRESERVE AND PROTECT EXISTING TREES. INSTALL TEMPORARY FENCING AROUND TREE CANOPY. NO CONSTRUCTION ACTIVITIES OR TRAVELING IS ALLOWED UNDER TREE CANOPY. CONTRACTOR SHALL USE VERTICAL TRENCH SHORING WHEN INSTALLING OUTFALL PIPELINE PARALLEL TO EXISTING TREES.
7. INSTALL 16' WIDE DOUBLE SWING UTILITY TUBE GATE WITH GATE POSTS PER 3231-415. MATCH EXISTING CORAL FENCING MANUFACTURER OR SIMILAR AS APPROVED BY ENGINEER.
8. INSTALL TEMPORARY CONSTRUCTION FENCE ALONG TCE. CONNECT TEMPORARY CONSTRUCTION FENCING TO EXISTING WIRE FIELD FENCE DURING CONSTRUCTION ACTIVITIES. SEE DET 3231-455 & 3231-456.
9. PRESERVE AND PROTECT EXISTING LEACH FIELD. INSTALL TEMPORARY FENCING AROUND LEACH FIELD W/IN TCE BLOCKING AREA OFF FROM CONSTRUCTION ACTIVITIES.
10. SEE TRAFFIC PLANS FOR LANDOWNER ACCESS REQUIREMENTS.
11. REPLACE EXISTING TRAFFIC CONTROL PULL BOX AND CONDUIT IN SAME LOCATION AS EXISTING PER SUTTER COUNTY STANDARDS.
12. PRESERVE AND PROTECT EXISTING WIRE FIELD FENCE SEPARATING PARVELS 23-110-007 AND 23-040-018.
13. CONNECT TEMPORARY CONSTRUCTION FENCING TO CORNER OF EXISTING FENCING.
14. TRENCH RESTORATION SHALL INCLUDE T-CUT RESTORATION. WHEN TRENCH IS WITHIN FOG LINE, CONTRACTOR SHALL INLAY 1" TO CENTERLINE OF GARDEN HIGHWAY.



PROFILE

1" = 40' (H) 1" = 10' (V)

JASON J JUNKERT
CA C66415

NOT FOR CONSTRUCTION

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
		B. THOMPSON	J. HESS	J. SMITH	APVD	J. JUNKERT	

CITY OF YUBA CITY
FEATHER RIVER OUTFALL & DIFFUSER PROJECT
YUBA CITY, CALIFORNIA, U.S.A.

JACOBS

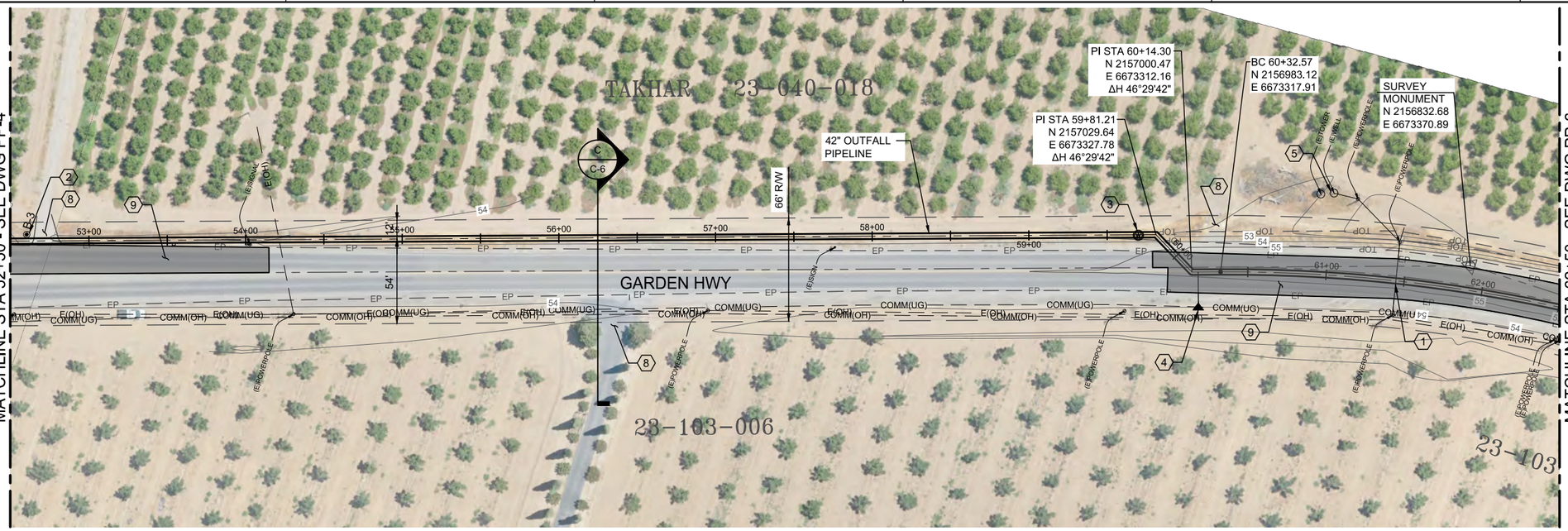
CIVIL

PIPELINE PLAN AND PROFILE
(STA 42+50 TO 52+50)

AS SHOWN
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	FEBRUARY 2022
PROJ	708865
DWG	PP-4
SHEET	of X

90% DESIGN - NOT FOR CONSTRUCTION



PLAN
1" = 40'

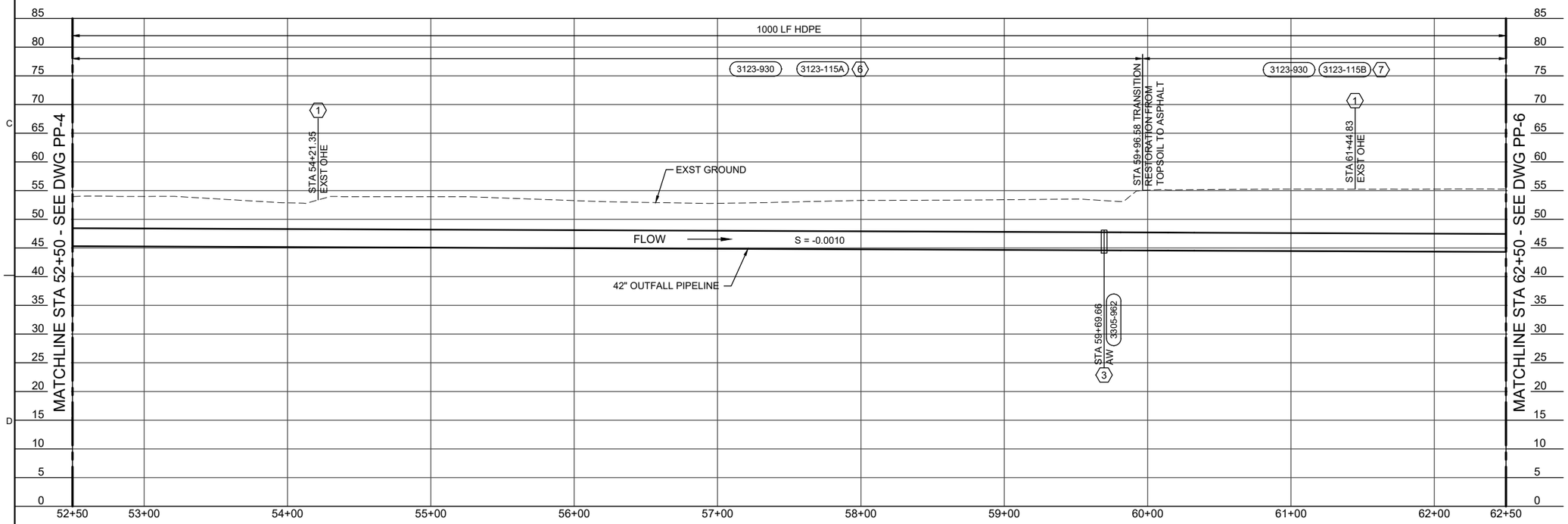
0 40 80 120
1" = 40'

KEY NOTES:

1. COORDINATE WITH PG&E FOR CONSTRUCTION UNDER OVERHEAD POWER. MAINTAIN MINIMUM CLEARANCE FROM CONSTRUCTION EQUIPMENT AS REQUIRED BY STATE AND FEDERAL OSHA. NOTE: OVERHEAD COMMUNICATIONS AT LOWER ELEVATION THAN MAIN CONDUCTORS, COORDINATE WITH COMMUNICATIONS PURVEYOR.
2. BOREHOLE. SEE GEOTECHNICAL DATA REPORT FOR MORE INFORMATION.
3. AT-GRADE ACCESS WAY PER DET 3305-962.
4. COMBINATION AIR RELEASE VALVE (CARV) PER DET 3312-652.
5. EXST WELL. OUTFALL PIPELINE SHALL MAINTAIN MIN 50' SEPARATION FROM PIPE WALL TO WELL CASING.
6. SEE DET 3123-115A FOR TOPSOIL RESTORATION SURFACING.
7. SEE DET 3123-115B FOR ASPHALT RESTORATION SURFACING.
8. COORDINATE AND SCHEDULE ACCESS WITH LANDOWNER. REPAIR DRIVEWAY OR ROADWAY APPROACH TO PRE-EXISTING OR BETTER CONDITIONS. PROVIDE STEEL PLATE OVER AREA AS NECESSARY TO ALLOW LANDOWNER ACCESS.
9. TRENCH RESTORATION SHALL INCLUDE T-CUT RESTORATION. WHEN TRENCH IS WITHIN FOG LINE, CONTRACTOR SHALL INLAY 1" TO CENTERLINE OF GARDEN HIGHWAY.

GENERAL NOTES:

1. SEE GENERAL NOTES ON G-13.



PROFILE
1" = 40' (H) 1" = 10' (V)

JASON J JUNKERT
CA C66415

NOT FOR CONSTRUCTION

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
		B. THOMPSON	J. HESS	J. SMITH	APVD	J. JUNKERT	

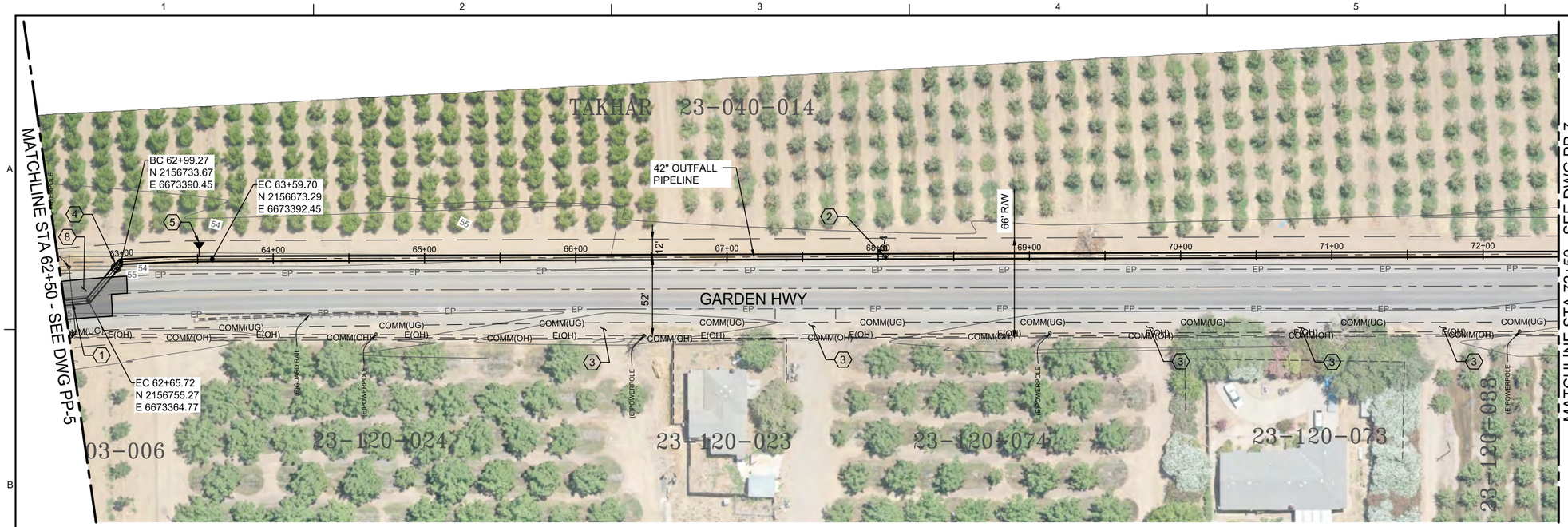
CITY OF YUBA CITY
FEATHER RIVER OUTFALL & DIFFUSER PROJECT
YUBA CITY, CALIFORNIA, U.S.A.

JACOBS

CIVIL
PIPELINE PLAN AND PROFILE
(STA 52+50 TO 62+50)

AS SHOWN	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"	
DATE	FEBRUARY 2022
PROJ	708865
DWG	PP-5
SHEET	of X

90% DESIGN - NOT FOR CONSTRUCTION



PLAN
1" = 40'

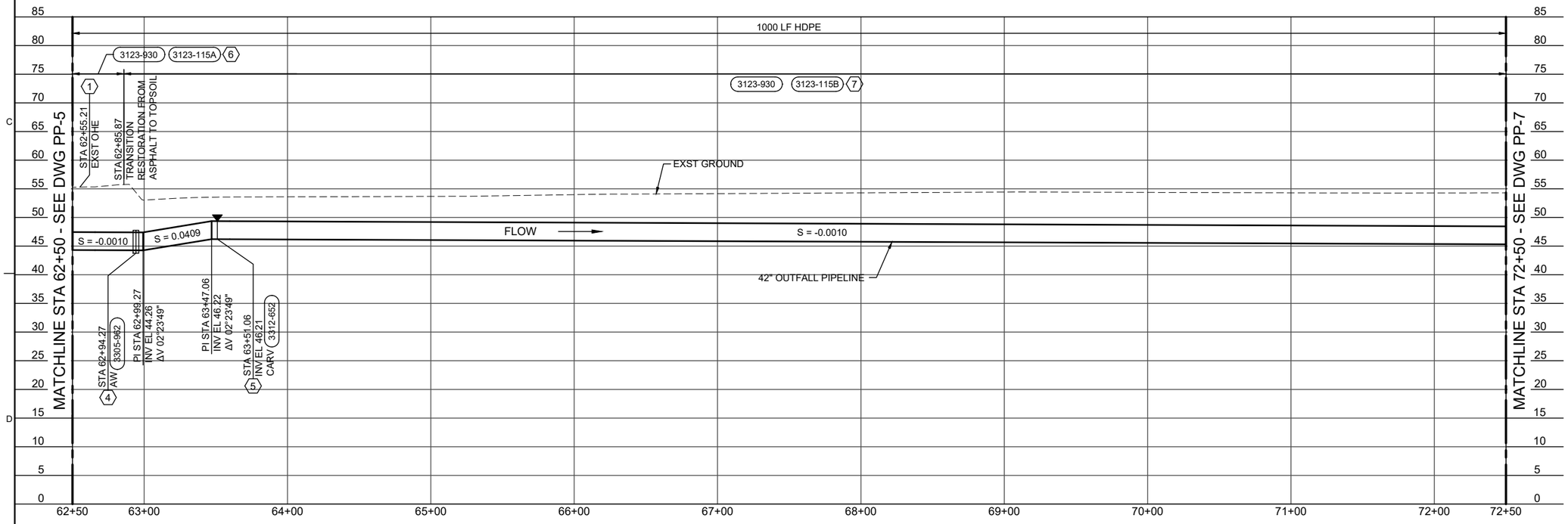
0 40 80 120
1" = 40'

GENERAL NOTES:

1. SEE GENERAL NOTES ON G-13.

KEY NOTES:

1. COORDINATE WITH PG&E FOR CONSTRUCTION UNDER OVERHEAD POWER. MAINTAIN MINIMUM CLEARANCE FROM CONSTRUCTION EQUIPMENT AS REQUIRED BY STATE AND FEDERAL OSHA. NOTE: OVERHEAD COMMUNICATIONS AT LOWER ELEVATION THAN MAIN CONDUCTORS, COORDINATE WITH COMMUNICATIONS PURVEYOR.
2. BOREHOLE. SEE GEOTECHNICAL DATA REPORT FOR MORE INFORMATION.
3. COORDINATE AND SCHEDULE ACCESS WITH LANDOWNER. REPAIR DRIVEWAY OR ROADWAY APPROACH TO PRE-EXISTING OR BETTER CONDITIONS. PROVIDE STEEL PLATE OVER AREA AS NECESSARY TO ALLOW LANDOWNER ACCESS.
4. AT-GRADE ACCESS WAY PER DETAIL (3305-962).
5. COMBINATION AIR RELEASE VALVE (CARV) PER DETAIL (3312-652).
6. SEE DET (3123-115A) FOR TOPSOIL RESTORATION SURFACING.
7. SEE DET (3123-115B) FOR ASPHALT RESTORATION SURFACING.
8. TRENCH RESTORATION SHALL INCLUDE T-CUT RESTORATION. WHEN TRENCH IS WITHIN FOG LINE, CONTRACTOR SHALL INLAY 1" TO CENTERLINE OF GARDEN HIGHWAY.



PROFILE
1" = 40' (H) 1" = 10' (V)

JASON J JUNKERT
CA C66415

NOT FOR CONSTRUCTION

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
		B. THOMPSON	J. HESS	J. SMITH	J. JUNKERT		

CITY OF YUBA CITY
FEATHER RIVER OUTFALL & DIFFUSER PROJECT
YUBA CITY, CALIFORNIA, U.S.A.

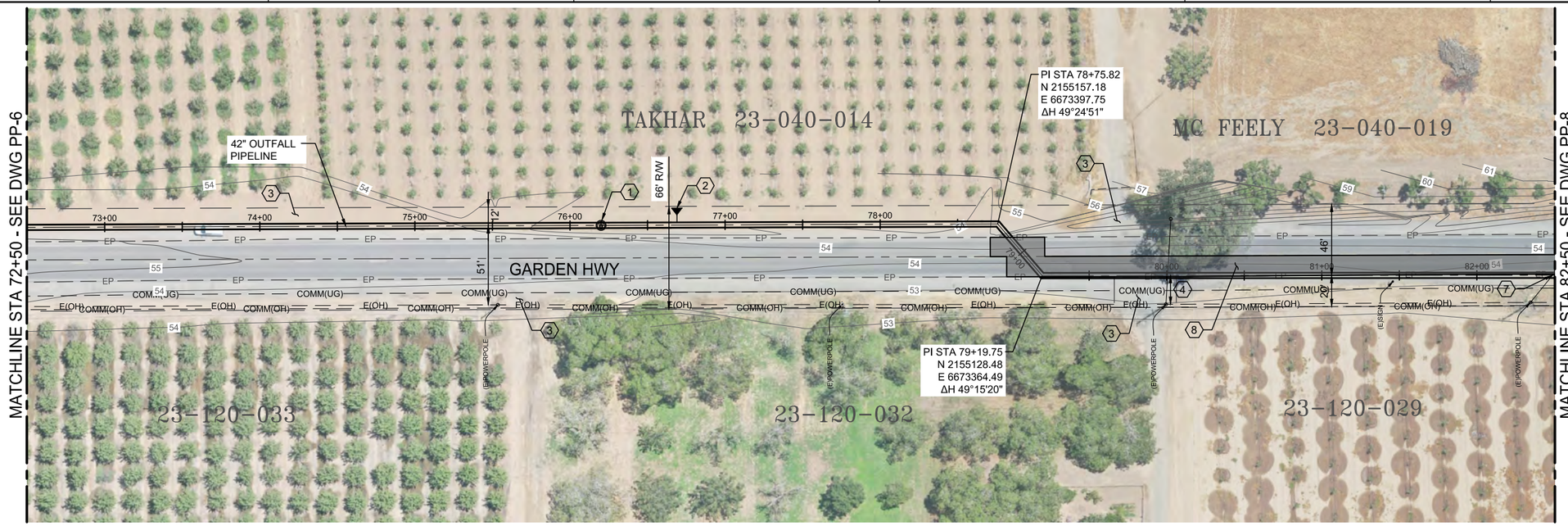
JACOBS

CIVIL
PIPELINE PLAN AND PROFILE
(STA 62+50 TO 72+50)

AS SHOWN
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	FEBRUARY 2022
PROJ	708865
DWG	PP-6
SHEET	of X

90% DESIGN - NOT FOR CONSTRUCTION



PLAN
1" = 40'

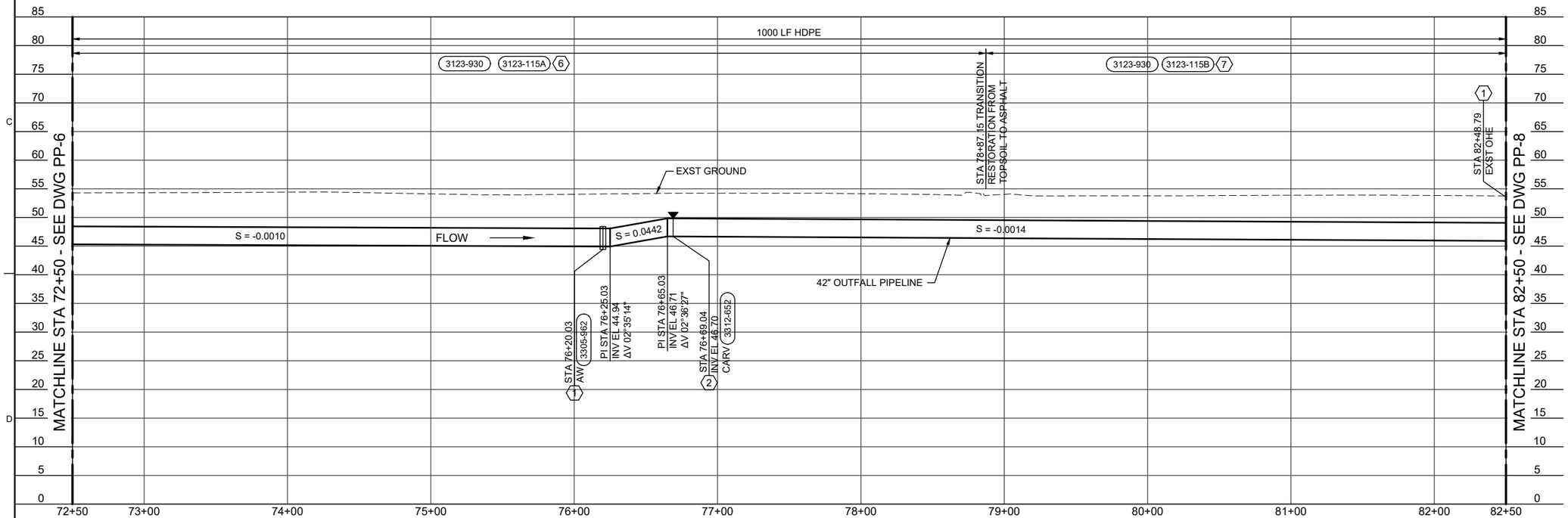
0 40 80 120
1" = 40'

GENERAL NOTES:

1. SEE GENERAL NOTES ON G-13.

KEY NOTES:

1. AT-GRADE ACCESS WAY PER DET 3305-962. SEE DWG G-3 FOR ACCESS WAY SCHEDULE AND SD-12 FOR DET.
2. COMBINATION AIR RELEASE VALVE (CARV) PER DET 3312-652. SEE DWG G-3 FOR CARV SCHEDULE AND SD-13 FOR DET.
3. COORDINATE AND SCHEDULE ACCESS WITH LANDOWNER. REPAIR DRIVEWAY OR ROADWAY APPROACH TO PRE-EXISTING OR BETTER CONDITIONS. PROVIDE STEEL PLATE OVER AREA AS NECESSARY TO ALLOW LANDOWNER ACCESS.
4. MAINTAIN SEPARATION REQUIREMENTS PER STATE AND FEDERAL OSHA REGULATIONS WHEN INSTALLING NEAR POWER LINES. COORDINATE WITH PG&E AND COMMUNICATIONS WHEN INSTALLING NEAR POWER LINES AND POLES.
5. SEE DET 3123-115A FOR TOPSOIL RESTORATION SURFACING.
6. SEE DET 3123-115B FOR ASPHALT RESTORATION SURFACING.
7. COORDINATE WITH PG&E FOR CONSTRUCTION UNDER OVERHEAD POWER. MAINTAIN MINIMUM CLEARANCE FROM CONSTRUCTION EQUIPMENT AS REQUIRED BY STATE AND FEDERAL OSHA. NOTE OVERHEAD COMMUNICATIONS AT LOWER ELEVATION THAN MAIN CONDUCTORS, COORDINATE WITH COMMUNICATIONS PURVEYOR.
8. TRENCH RESTORATION SHALL INCLUDE T-CUT RESTORATION. WHEN TRENCH IS WITHIN FOG LINE, CONTRACTOR SHALL INLAY 1" TO CENTERLINE OF GARDEN HIGHWAY.



PROFILE
1" = 40' (H) 1" = 10' (V)

JASON J JUNKERT
CA C66415

NOT FOR CONSTRUCTION

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
		B. THOMPSON	J. HESS	J. SMITH	J. JUNKERT		

CITY OF YUBA CITY
FEATHER RIVER OUTFALL & DIFFUSER PROJECT
YUBA CITY, CALIFORNIA, U.S.A.

JACOBS

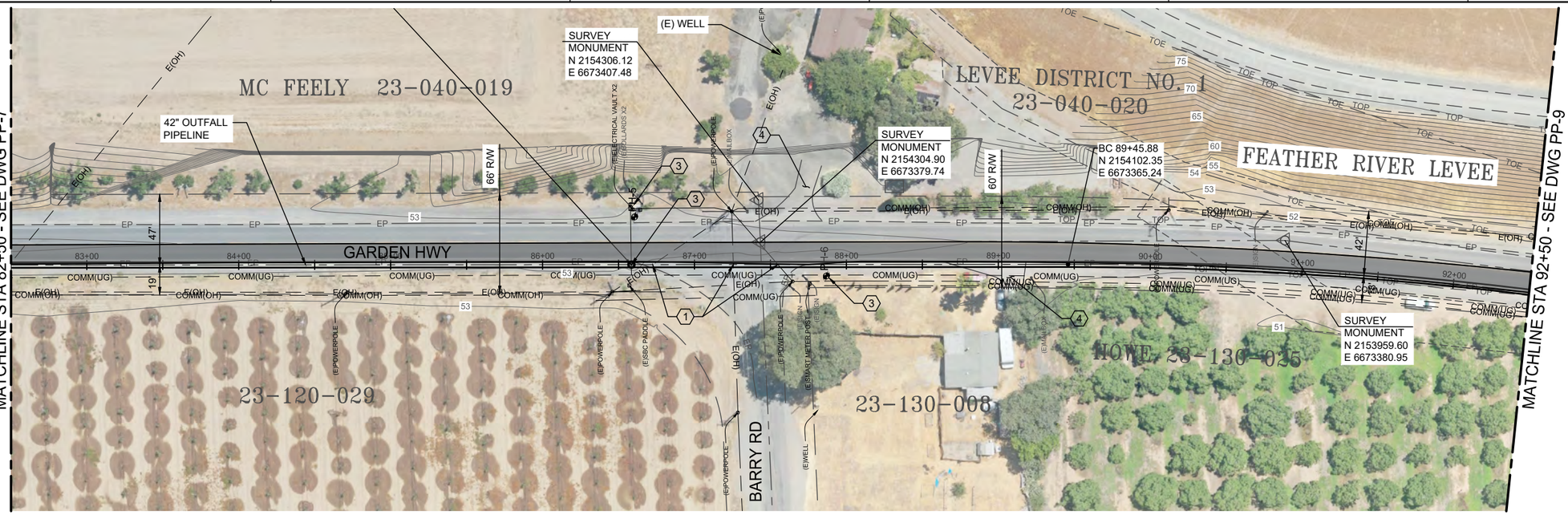
CIVIL

PIPELINE PLAN AND PROFILE
(STA 72+50 TO 82+50)

AS SHOWN
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	FEBRUARY 2022
PROJ	708865
DWG	PP-7
SHEET	of X

90% DESIGN - NOT FOR CONSTRUCTION



PLAN
1" = 40'

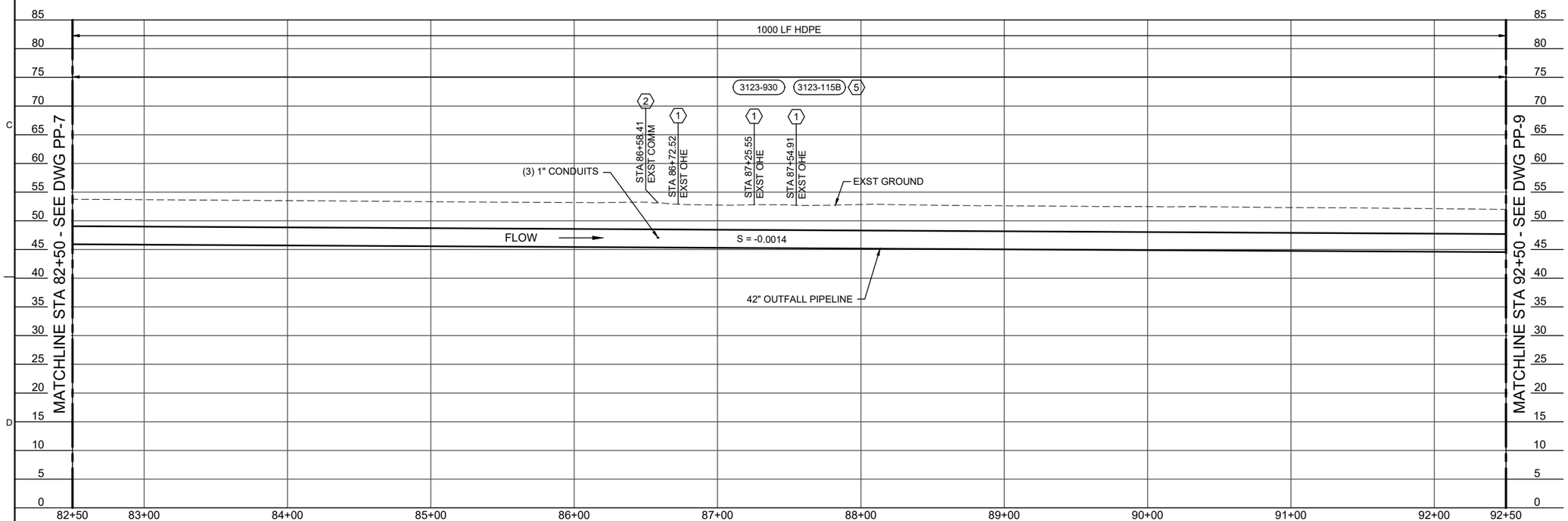
0 40 80 120
1" = 40'

GENERAL NOTES:

1. SEE GENERAL NOTES ON G-13.

KEY NOTES:

1. COORDINATE WITH PG&E FOR CONSTRUCTION UNDER OVERHEAD POWER. MAINTAIN MINIMUM CLEARANCE FROM CONSTRUCTION EQUIPMENT AS REQUIRED BY STATE AND FEDERAL OSHA. NOTE OVERHEAD COMMUNICATIONS AT LOWER ELEVATION THAN MAIN CONDUCTORS, COORDINATE WITH COMMUNICATIONS PURVEYOR.
2. UNDERGROUND COMMUNICATION, SEE DATA ON DWG G-3 FOR POTHOLE INFORMATION. RELOCATE 3-1" CONDUITS OR INSTALL UNDER AT CITY'S REQUEST.
3. POTHOLE OF EXISTING UTILITY. SEE POTHOLE DATA TABLE ON DWG G-03.
4. COORDINATE AND SCHEDULE ACCESS WITH LANDOWNER. REPAIR DRIVEWAY OR ROADWAY APPROACH TO PRE-EXISTING OR BETTER CONDITION. PROVIDE STEEL PLATE OVER AREA AS NECESSARY TO ALLOW LANDOWNER ACCESS.
5. SEE DET (3123-115B) FOR ASPHALT RESTORATION SURFACING.
6. TRENCH RESTORATION SHALL INCLUDE T-CUT RESTORATION. WHEN TRENCH IS WITHIN FOG LINE, CONTRACTOR SHALL INLAY 1" TO CENTERLINE OF GARDEN HIGHWAY.



PROFILE
1" = 40' (H) 1" = 10' (V)

JASON J JUNKERT
CA C66415

NOT FOR CONSTRUCTION

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
		B. THOMPSON	J. HESS	J. SMITH	J. JUNKERT		

CITY OF YUBA CITY
FEATHER RIVER OUTFALL & DIFFUSER PROJECT
YUBA CITY, CALIFORNIA, U.S.A.

JACOBS

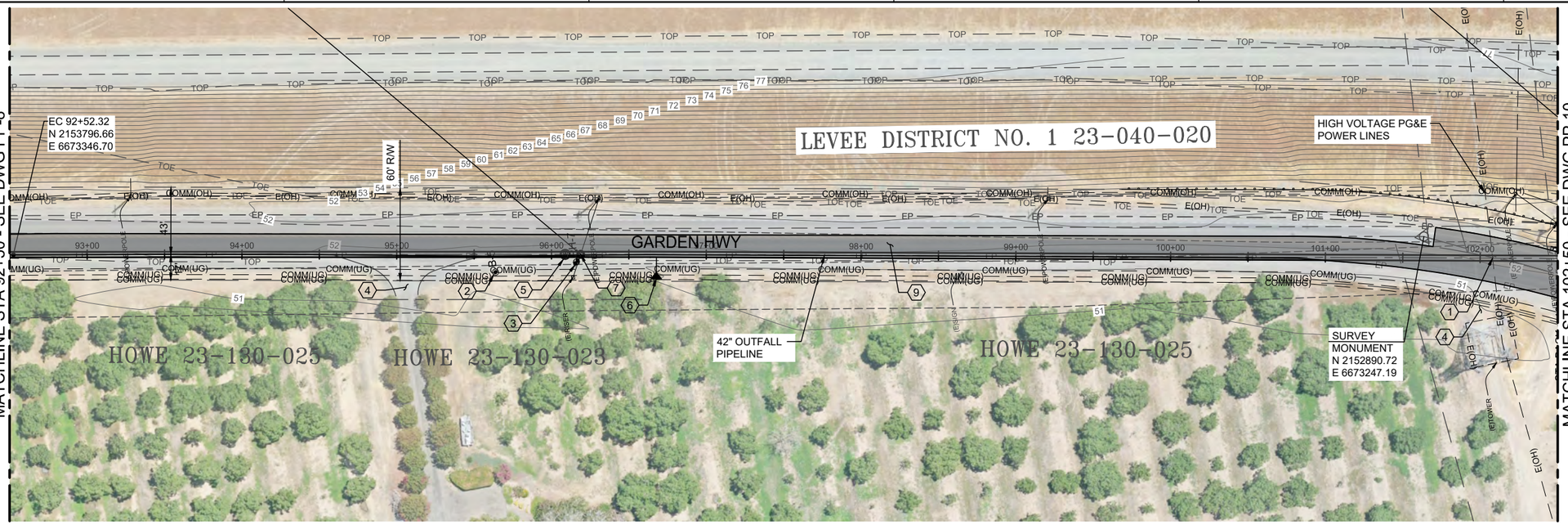
CIVIL

PIPELINE PLAN AND PROFILE
(STA 82+50 TO 92+50)

AS SHOWN
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	FEBRUARY 2022
PROJ	708865
DWG	PP-8
SHEET	of X

90% DESIGN - NOT FOR CONSTRUCTION



PLAN
1" = 40'

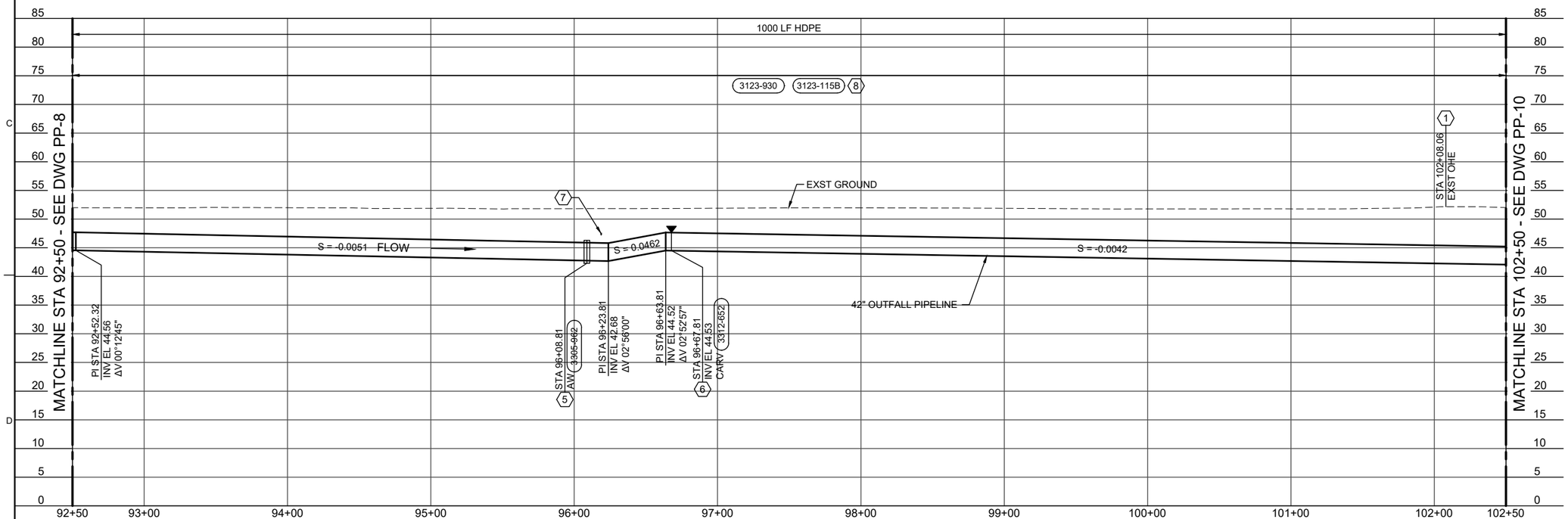
0 40 80 120
1" = 40'

GENERAL NOTES:

1. SEE GENERAL NOTES ON G-13.

KEY NOTES:

1. COORDINATE WITH PG&E FOR CONSTRUCTION UNDER OVERHEAD POWER. MAINTAIN MINIMUM CLEARANCE FROM CONSTRUCTION EQUIPMENT AS REQUIRED BY STATE AND FEDERAL OSHA. NOTE: OVERHEAD COMMUNICATIONS AT LOWER ELEVATION THAN MAIN CONDUCTORS, COORDINATE WITH COMMUNICATIONS PURVEYOR.
2. BOREHOLE. SEE GEOTECHNICAL DATA REPORT FOR MORE INFORMATION.
3. POTHOLE OF EXISTING UTILITY. SEE POTHOLE DATA TABLE ON DWG G-03.
4. COORDINATE AND SCHEDULE ACCESS WITH LANDOWNER. REPAIR DRIVEWAY OR ROADWAY APPROACH TO PRE-EXISTING OR BETTER CONDITION. PROVIDE STEEL PLATE OVER AREA AS NECESSARY TO ALLOW LANDOWNER ACCESS.
5. AT-GRADE ACCESS WAY PER DET (3305-962).
6. COMBINATION AIR RELEASE VALVE (CARV) PER DET (3312-652).
7. BURRIED ELECTRIC LINE. COORDINATE WITH PG&E FOR CONSTRUCTION AT CROSSING. MAINTAIN MINIMUM CLEARANCE AS REQUIRED BY OSHA AND BY PG&E.
8. SEE DET (3123-115B) FOR ASPHALT RESTORATION SURFACING ON DWG SD-9.
9. TRENCH RESTORATION SHALL INCLUDE T-CUT RESTORATION. WHEN TRENCH IS WITHIN FOG LINE, CONTRACTOR SHALL INLAY 1" TO CENTERLINE OF GARDEN HIGHWAY.



PROFILE
1" = 40' (H) 1" = 10' (V)

JASON J JUNKERT
CA C66415

NOT FOR CONSTRUCTION

NO.	DATE	DSGN	REVISION	DR	CHK	APVD	BY
		B. THOMPSON		J. HESS	J. SMITH		J. JUNKERT

CITY OF YUBA CITY
FEATHER RIVER OUTFALL & DIFFUSER PROJECT
YUBA CITY, CALIFORNIA, U.S.A.

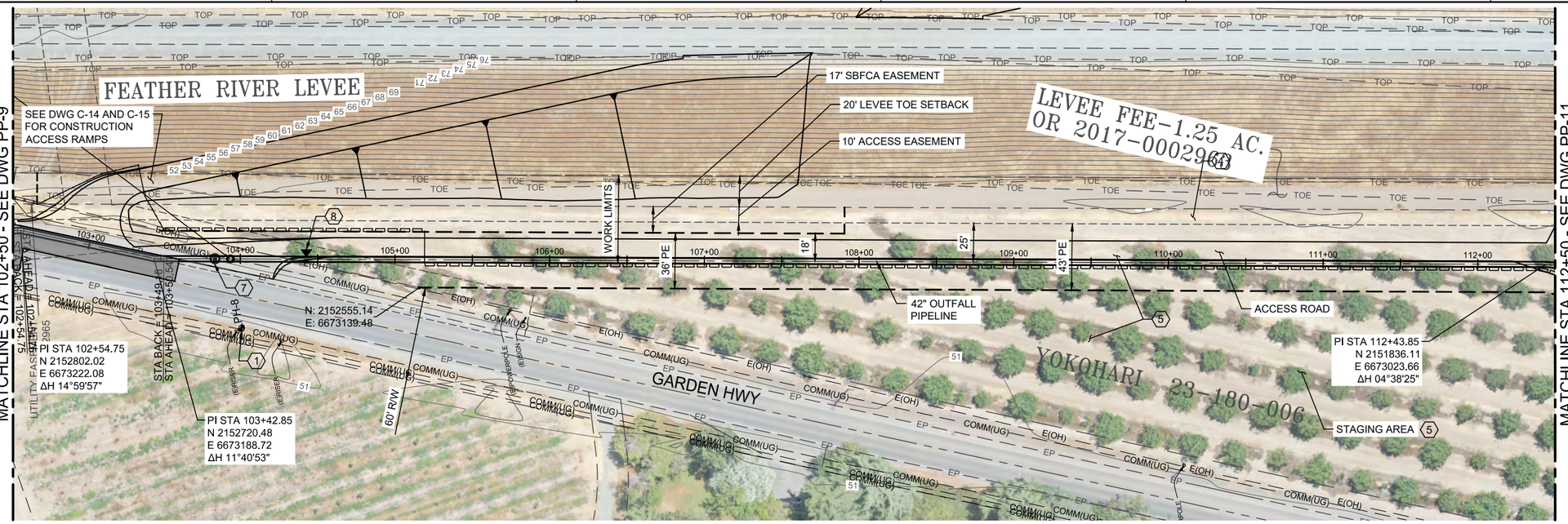
JACOBS

CIVIL
PIPELINE PLAN AND PROFILE
(STA 92+50 TO 102+50)

AS SHOWN
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	FEBRUARY 2022
PROJ	708865
DWG	PP-9
SHEET	of X

90% DESIGN - NOT FOR CONSTRUCTION



PLAN
1" = 40'

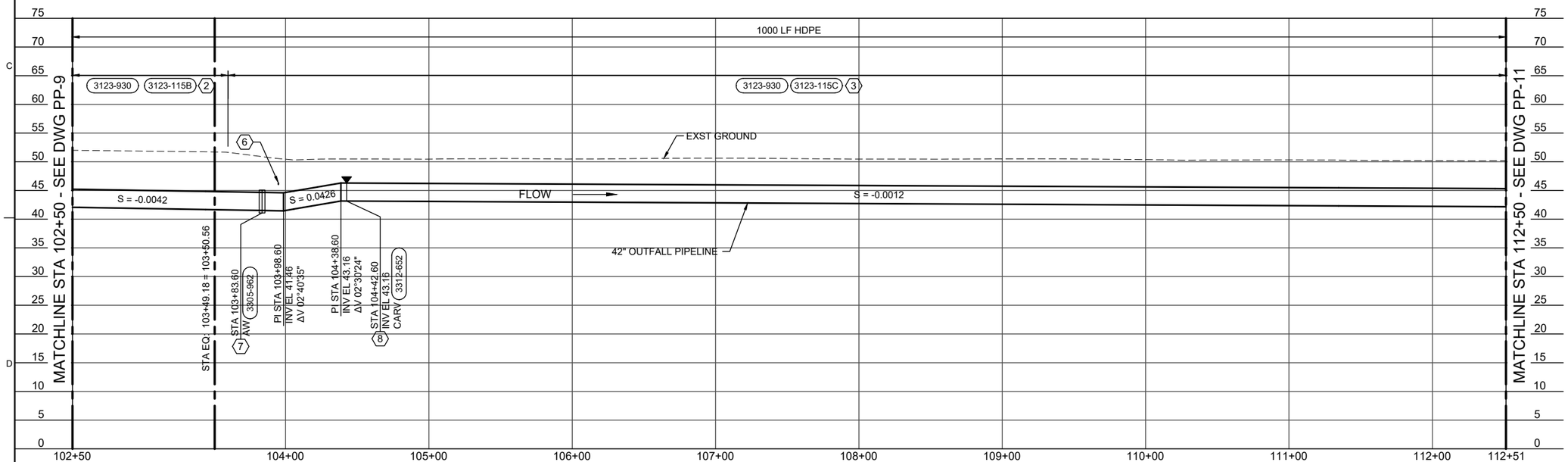
0 40 80 120
1" = 40'

GENERAL NOTES:

1. SEE GENERAL NOTES ON G-13.

KEY NOTES:

1. POTHOLE OF EXISTING UTILITY. SEE POTHOLE DATA TABLE ON DWG G-03.
2. SEE DET 3123-115B FOR ASPHALT RESTORATION SURFACING.
3. SEE DET 3123-115C FOR GRAVEL SURFACING RESTORATION.
4. CONTRACTOR MAY USE SBFCA LEVEE TOE SETBACK, EXCLUSIVE EASEMENT, AND LD-1 ACCESS EASEMENT TO ACCESS WORK AREA FOR CONSTRUCTION OF THE LEVEE RAMP AND PIPELINE LEVEE CROSSING. CONTRACTOR SHALL NOT STOCKPILE SPOIL OR MATERIALS AND WILL PROVIDE ACCESS FOR SBFCA AROUND THE WORK AREA AT ANY TIME DURING CONSTRUCTION FOR INSPECTION OF THE LEVEE TOE.
5. STAGING AREA: PARCEL 23-180-006 SHALL BE USED AS A STAGING AREA. CONTRACTOR SHALL REMOVE WALNUT TREES, IRRIGATION PIPING AND ANCILLARY APPURTENANCES AND WILL BECOME THE PROPERTY OF THE CONTRACTOR AND WILL BE REMOVED FROM THE SITE. SURFACE SHALL BE RESTORED TO EXISTING GRADE.
6. CONTRACTOR TO POTHOLE AND SUBMIT DATA TO ENGINEER MIN. 2 WEEKS PRIOR TO CONSTRUCTION.
7. AT-GRADE ACCESS WAY PER DET 3305-962.
8. COMBINATION AIR RELEASE VALVE (CARV) PER DET 3312-652.



PROFILE
1" = 40' (H) 1" = 10' (V)

JASON J JUNKERT
CA C66415

NOT FOR CONSTRUCTION

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
		B. THOMPSON	J. HESS	J. SMITH		J. JUNKERT	

CITY OF YUBA CITY
FEATHER RIVER OUTFALL & DIFFUSER PROJECT
YUBA CITY, CALIFORNIA, U.S.A.

JACOBS

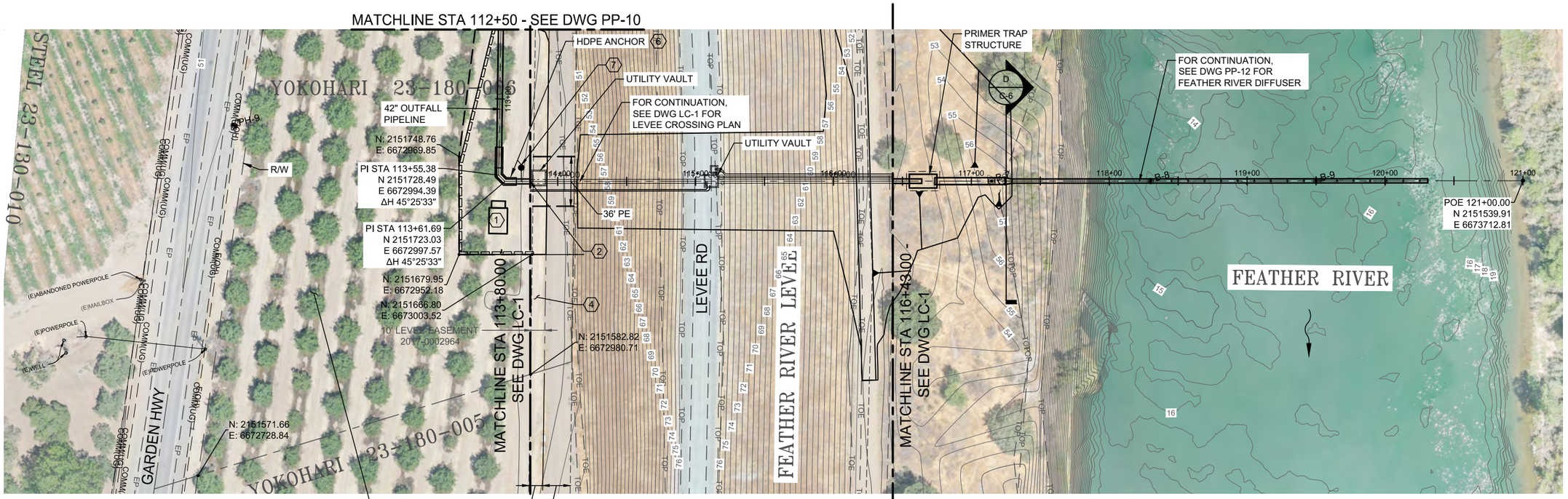
CIVIL

PIPELINE PLAN AND PROFILE
(STA 102+50 TO 112+50)

90% DESIGN - NOT FOR CONSTRUCTION

AS SHOWN
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	FEBRUARY 2022
PROJ	708865
DWG	PP-10
SHEET	of X



PLAN
1" = 40'

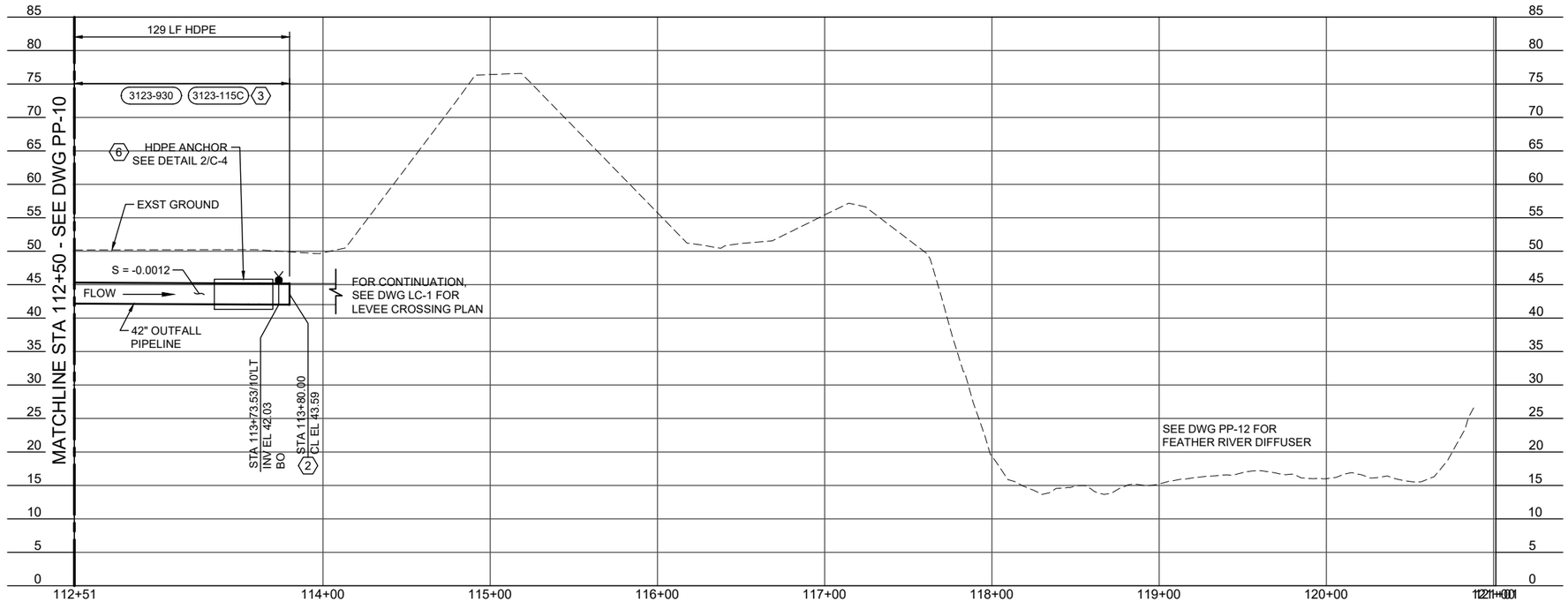
0 40 80 120
1" = 40'

GENERAL NOTES:

1. SEE GENERAL NOTES ON G-13.

KEY NOTES:

1. VACUUM-ASSISTED SIPHON BUILDING, SEE DWG C-12 FOR SITE PLAN, SEE DWG M-4 FOR DETAILS.
2. TRANSITION FROM HDPE PIPE TO STEEL PIPE, SEE DET 1 ON DWG C-5.
3. SEE DET (3123-115C) FOR GRAVEL SURFACING RESTORATION ON DWG SD-9 AND SITE GRADING ON DWG C-12.
4. CONTRACTOR MAY USE SBFCA LEVEE TOE SETBACK, EXCLUSIVE EASEMENT, AND L1-1 ACCESS EASEMENT TO ACCESS WORK AREA FOR CONSTRUCTION OF THE LEVEE RAMP AND PIPELINE LEVEE CROSSING. CONTRACTOR SHALL NOT STOCKPILE SPOIL OR MATERIALS AND WILL PROVIDE ACCESS FOR SBFCA AROUND THE WORK AREA AT ANY TIME DURING CONSTRUCTION FOR INSPECTION OF THE LEVEE TOE.
5. PARCEL 23-180-006 SHALL BE USED AS A STAGING AREA. CONTRACTOR SHALL REMOVE WALNUT TREES, IRRIGATION PIPING AND ANCILLARY APPURTENANCES AND WILL BECOME THE PROPERTY OF THE CONTRACTOR AND WILL BE REMOVED FROM THE SITE. SURFACE SHALL BE RESTORED TO EXISTING GRADE.
6. MINIMUM EXTENTS OF ENCASEMENT PER DET 2 ON DWG C-5 SHALL BE FROM STA 113+43 TO 113+78.00.
7. BLOW-OFF ASSEMBLY PER (3305-932).



PROFILE
1" = 40' (H) 1" = 10' (V)

JASON J JUNKERT
CA C66415

NOT FOR CONSTRUCTION

NO.	DATE	REVISION	BY	APVD

DSGN B. THOMPSON DR J. HESS CHK J. SMITH APVD J. JUNKERT

CITY OF YUBA CITY
FEATHER RIVER OUTFALL & DIFFUSER PROJECT
YUBA CITY, CALIFORNIA, U.S.A.

JACOBS

CIVIL

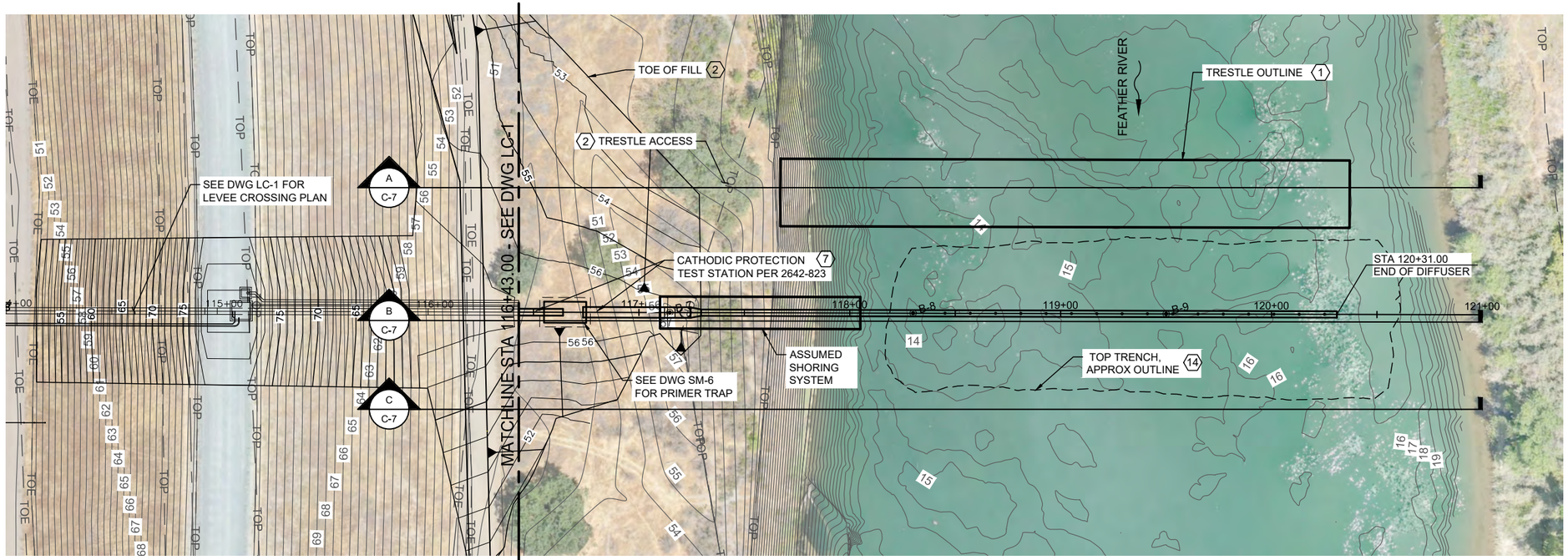
PIPELINE PLAN AND PROFILE
(STA 112+50 TO 113+80.00)

90% DESIGN - NOT FOR CONSTRUCTION

AS SHOWN	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"	
DATE	FEBRUARY 2022
PROJ	708865
DWG	PP-11
SHEET	of X

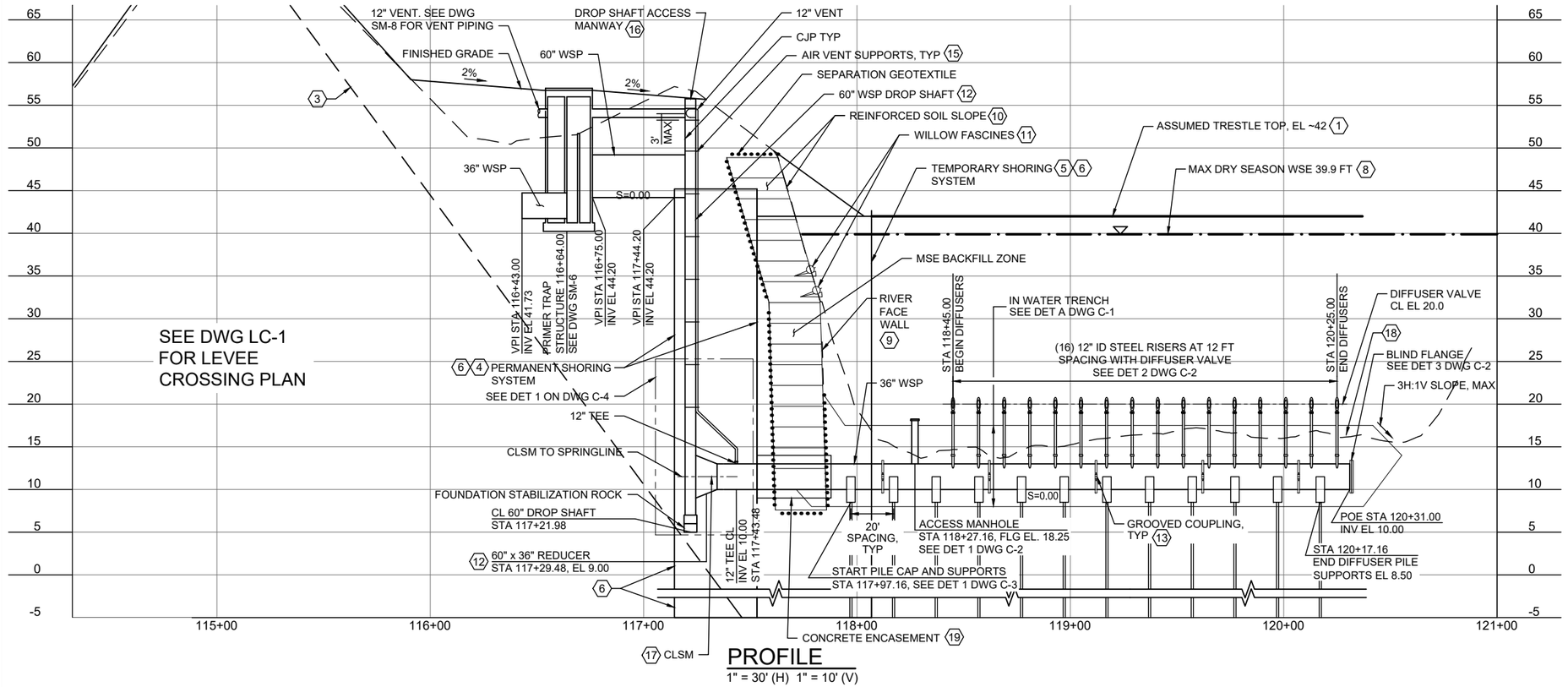
C:\Users\JH040719\OneDrive - Jacobs\Desktop\Yuba City Export\

FILENAME: 002-PP-0001-0011-708865.dwg PLOT DATE: 12/23/2021 PLOT TIME: 4:41 PM



PLAN

1" = 30'



PROFILE

1" = 30' (H) 1" = 10' (V)

GENERAL NOTES:

1. SEE GENERAL NOTES ON G-13.

2. BOND ACROSS ALL NON-WELDED JOINTS TO MAKE THE OUTFALL PIPELINE ELECTRICALLY CONTINUOUS. ADD CATHODIC PROTECTION, GALVANIC ANODES, AS SHOWN ON THE DRAWINGS AND AS SPECIFIED.

KEY NOTES:

1. APPROXIMATE OUTLINE ASSUMES PILE SUPPORTED CONSTRUCTION TRESTLE (32'x270') WITH 11 PAIRS 36" STEEL PILE SUPPORTS AT 24 FT SPACING. DESIGNED AND PROVIDED BY CONTRACTOR. MODIFY AS NECESSARY BUT CANNOT BE LARGER THAN SHOWN.
2. CONSTRUCT ACCESS RAMP AS NEEDED TO ACCESS TRESTLE. RESTORE SLOPE AFTER CONSTRUCTION. SEE CVFPV PERMIT FOR ACCESS LIMITATIONS.
3. CVFPB THEORETICAL LEVEE PRISM. FOR REFERENCE ONLY.
4. PERMANENT SHORING SYSTEM TO REMAIN FROM STA 117+14.48 TO 117+53.17.
5. REMOVE TEMPORARY SHORING SYSTEM.
6. SHORING SYSTEM DEPTH AND EXTENT APPROXIMATE. ACTUAL DEPTH AND EXTENTS DESIGNED BY CONTRACTOR.
7. CATHODIC PROTECTION TEST STATION, SEE DET (2642-802). FIELD LOCATE AND AS APPROVED BY ENGINEER.
8. BASED ON JUNE THROUGH OCTOBER DRY SEASON DATA FROM 1993 AND LOCAL FLOW-STAGE REGRESSION FROM THE 2D HYDRAULIC MODEL AT THE PROJECT SITE. MINIMUM STAGE IS APPROXIMATELY 29.0.
9. RIVER FACE WALL. SEE DET 1 ON C-17. USE ON ALL SLOPES 1:1 AND STEEPER.
10. SEE DET 2 ON C-17. USE ON ALL SLOPES 2:1 OR STEEPER BUT LESS THAN 1:1.
11. PLACE TWO CONTINUOUS ROWS OF WILLOW FASCINES AT APPROXIMATE ELEVATION 33FT AND 35FT. SEE DETAIL 3 ON C-15.
12. 60" DROP SHAFT SEE DET 1 ON DWG C-4.
13. APPROX. 50 FT SPACING, OR AS NEEDED TO CLEAR PILE CAPS AND DIFFUSERS.
14. RIVER BOTTOM BATHYMETRY MAY HAVE CHANGED SINCE THE LATEST BATHYMETRIC SURVEY. TRENCH LIMITS MAY VARY. SEE DWG C-1 AND RIVER SECTIONS IN DWG C-7.
15. MAX 6'-0" SPACING. SEE DET 1 ON DWG C-4.
16. SEE DET 2 ON DWG C-1 FOR 60" DIA DROP SHAFT MANWAY AND CONCRETE VAULT. FABRICATE DROP SHAFT USING ASTM A516, GRADE 70, T=3/4".
17. CLSM PIPE BEDDING TO PIPE SPRINGLINE WITHIN COFFERDAM SHEET PILE SYSTEM. SEE (3123-930), SIM. CONSTRUCT RIVER FACE WALL TO CONFORM TO OUTSIDE OF PIPE AND CLSM.
18. LOCATE TWO ANODES ON EVERY OTHER RISER PIPE AS SHOWN ON DRAWING C-1 FOR A TOTAL OF 16 ANODES ON THE OUTFALL STRUCTURE. ANODE CONNECTION POINTS SHALL BE ABOVE THE TOP OF THE BACKFILL ELEVATION.
19. CONCRETE ENCASEMENT FROM STA 117+53.17 TO 117+87.84. (0330-017)

JASON J JUNKERT
CA C66415

NOT FOR CONSTRUCTION

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
		B. THOMPSON	J. HESS	J. SMITH	APVD	J. JUNKERT	

CITY OF YUBA CITY
FEATHER RIVER OUTFALL & DIFFUSER PROJECT
YUBA CITY, CALIFORNIA, U.S.A.

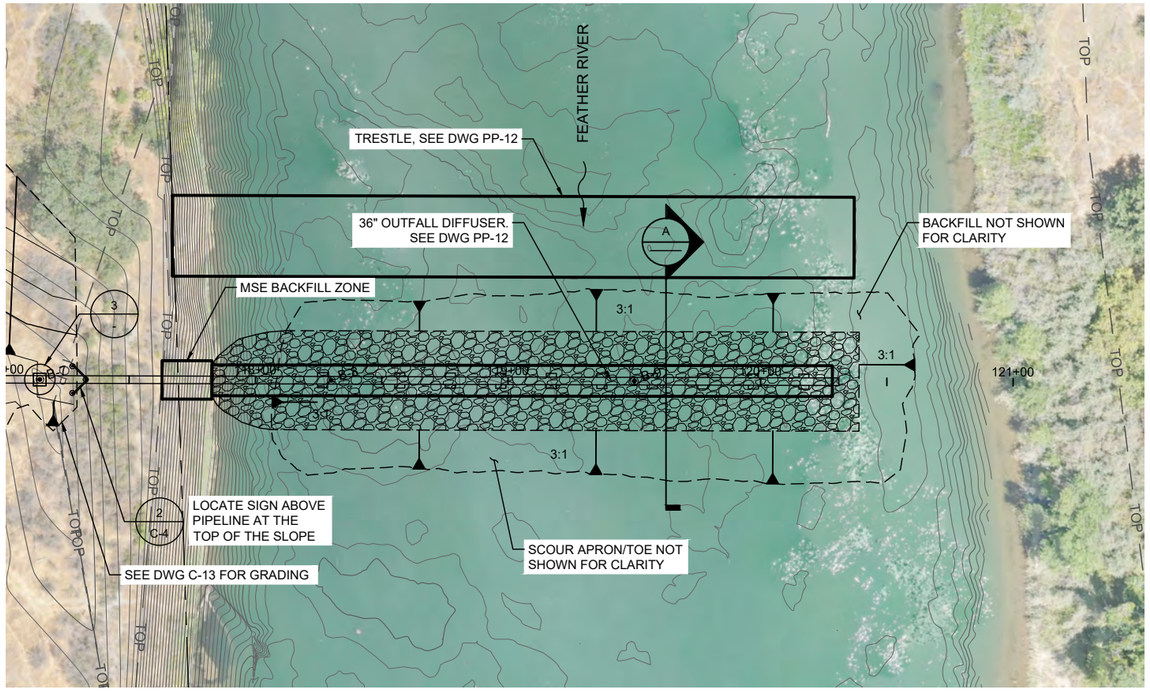
JACOBS

CIVIL

FEATHER RIVER DIFFUSER SITE PLAN AND RESTORATION PLAN STA 116+43 TO 120+31

AS SHOWN	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"	
DATE	FEBRUARY 2022
PROJ	708865
DWG	PP-12
SHEET	of X

90% DESIGN - NOT FOR CONSTRUCTION

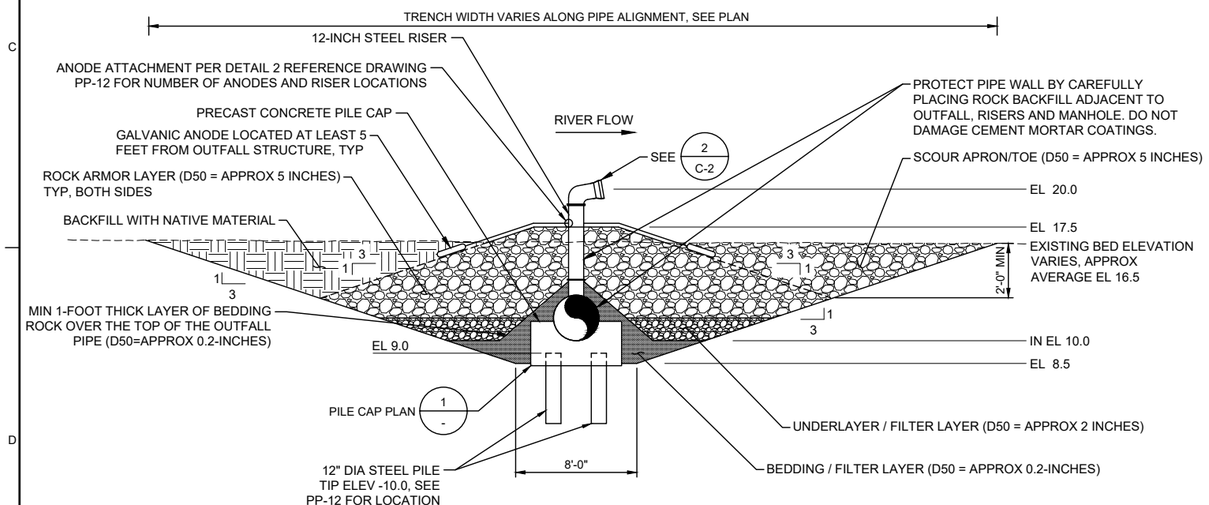


PLAN

N

0 30 60 90

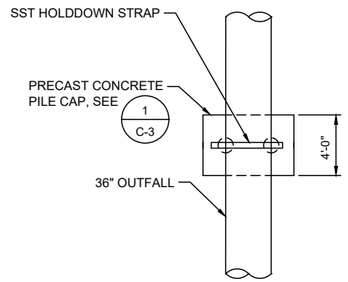
1" = 30'



A IN WATER RIVER TRENCH AND BACKFILL

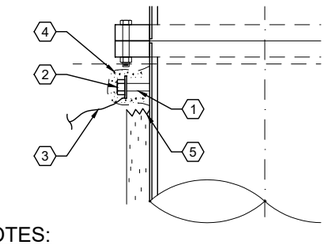
NTS

PP-12



1 PILE CAP PLAN

1" = 5'

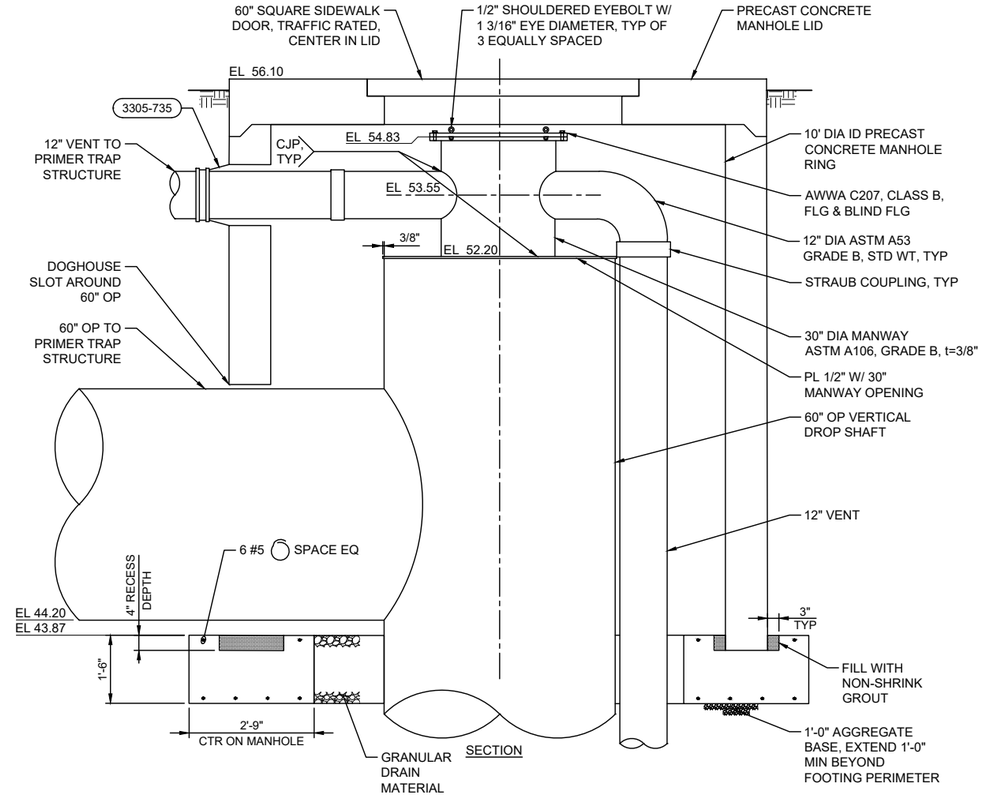


KEY NOTES:

1. 1/2" DIAMETER 304 STAINLESS STEEL HEX COUPLING NUT, 1 1/2" LONG, WELDED TO PIPE USING E309L STAINLESS STEEL ELECTRODE.
2. 1/2" DIAMETER SILICON-BRONZE HEX-HEAD CAP SCREW, 1" LONG.
3. WIRE LUG CONNECTOR AND CABLES TO ANODE. ANODE SIZE, WEIGHT, WIRE LUG AND CONNECTION MATERIALS AS SPECIFIED IN SECTION 26 42 02.
4. COAT CONNECTION WITH UNDERWATER EPOXY PUTTY AS SPECIFIED IN SECTION 26 42 02.
5. CHIP AWAY CEMENT MORTAR COATING AS NEEDED FOR WIRE LUG CONNECTION.

2 ANODE ATTACHMENT DETAIL

NTS



3 DROP SHAFT ACCESS MANWAY DETAIL

1"=20'

PP-12

JEREMY A. KELLOGG
CA S5698

NOT FOR CONSTRUCTION

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
DSGN	B. THOMPSON		H. QUINNETT	L. DAVIS		J. JUNKERT	

CITY OF YUBA CITY
FEATHER RIVER OUTFALL & DIFFUSER PROJECT
YUBA CITY, CALIFORNIA, U.S.A.

JACOBS

CIVIL

FEATHER RIVER DIFFUSER
PLAN AND SECTIONS

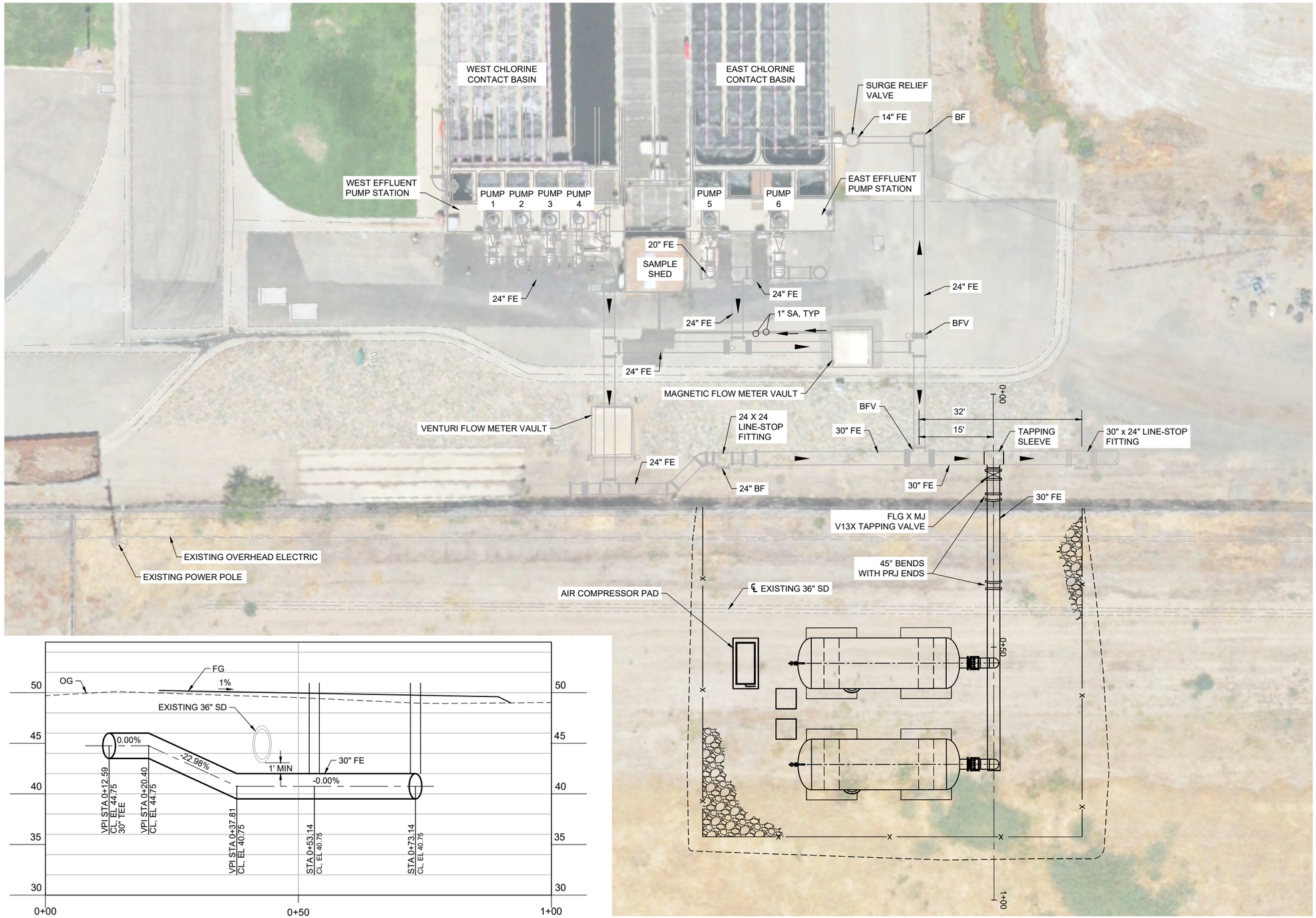
90% DESIGN - NOT FOR CONSTRUCTION

AS SHOWN

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	FEBRUARY 2022
PROJ	708865
DWG	C-1
SHEET	of X



PROFILE
1" = 10' HORIZ
1" = 5 VERT

PLAN
1" = 10'

0 10 20 30
1" = 10'

ASHLEY E KELLOGG
CA C76561

NOT FOR CONSTRUCTION

NO.	DATE	DSGN	DR	CHK	APVD	BY	APVD
		A. KELLOGG	A. MacGREGOR	L. ALLIGER			J. JUNKERT

REVISION

CITY OF YUBA CITY
FEATHER RIVER OUTFALL & DIFFUSER PROJECT
YUBA CITY, CALIFORNIA, U.S.A.

JACOBS

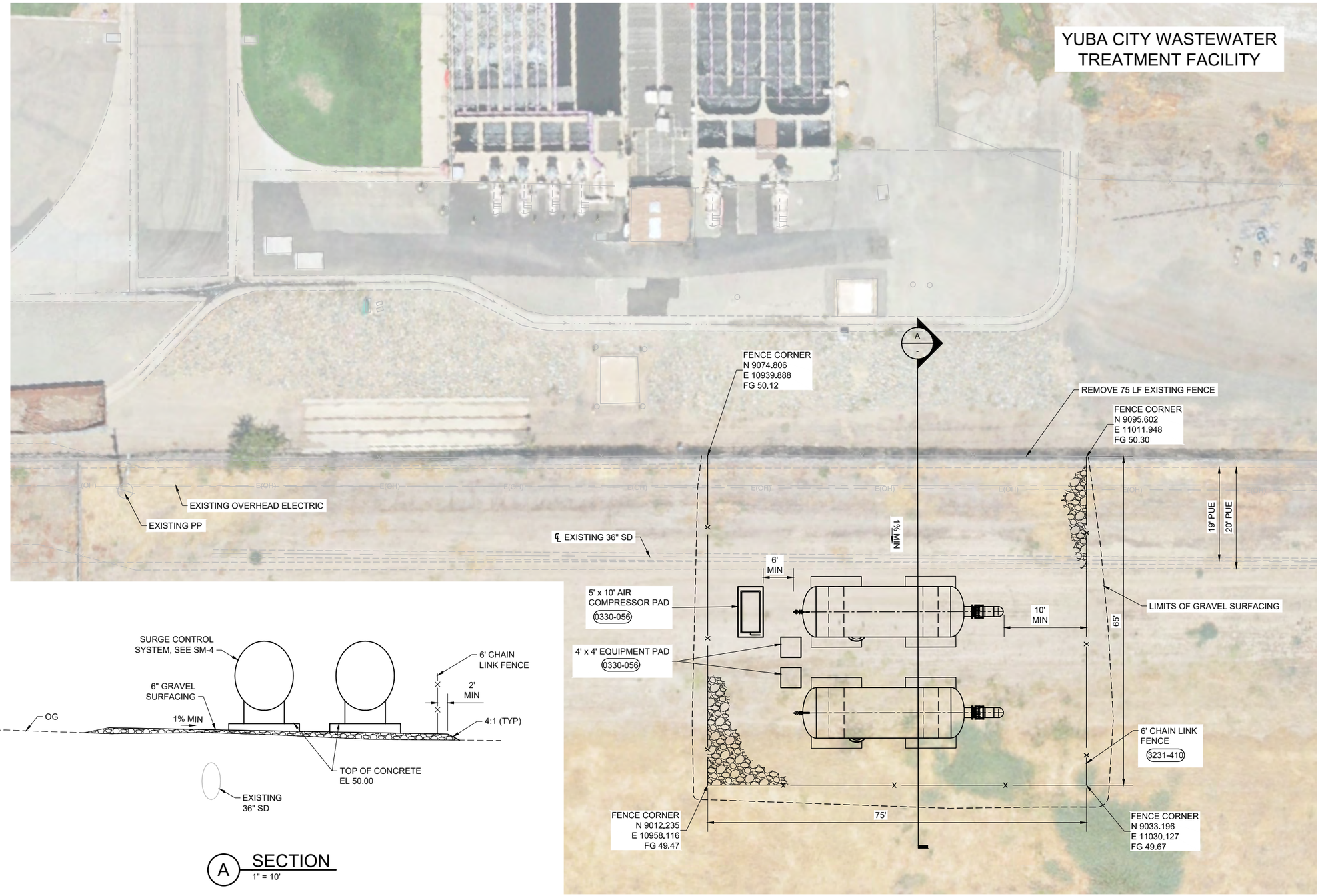
CIVIL

WWTF EFFLUENT PUM STATION AND SURGE CONTROL SYSTEM YARD PIPING PLAN AND DETAILS

60% DESIGN - NOT FOR CONSTRUCTION

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	OCTOBER 2021
PROJ	708865
DWG	C-7
SHEET	of 90



A SECTION
1" = 10'

PLAN
1" = 10'

0 10 20 30
1" = 10'

ASHLEY E KELLOGG
CA C76561

NOT FOR
CONSTRUCTION

NO.	DATE	REVISION	BY	APVD
DSGN	A. KELLOGG	DR	A. MacGREGOR	CHK	L. ALLIGER	APVD	J. JUNKERT

CITY OF YUBA CITY
FEATHER RIVER OUTFALL & DIFFUSER PROJECT
YUBA CITY, CALIFORNIA, U.S.A.

JACOBS

CIVIL
SURGE CONTROL SYSTEM
SITE GRADING

60% DESIGN - NOT FOR CONSTRUCTION

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	OCTOBER 2021
PROJ	708865
DWG	C-8
SHEET	of 90

Appendix B. Special-Status Species

Appendix B. Special-status Species Identified from California Natural Diversity Database, U.S. Fish and Wildlife Service, and National Oceanic and Atmospheric Administration – National Marine Fisheries Service Records Searches
Biological Resources and Habitat Assessment, Yuba City WWTF Outfall and Diffuser Project, Sutter County, California

Scientific Name	Common Name	Status				Habitat Requirements	Potential for Occurrence
		Federal	State	CDFW	CNPS		
Plants							
Astragalus tener var. ferrisiae	Ferris' milk-vetch	-	-	-	1B.1	Occurs in vernally mesic meadows and mildly alkaline flats in valley and foothill grassland, usually on dry, heavy clay or adobe soils.	Species occurred historically within 3 miles of the project area. However, this occurrence is based on a single collection from 1891 that is presumed extant, but further field work is warranted. No suitable habitat is present in the project area to support this species. Therefore, occurrence of this species is unlikely.
Pseudobahia bahiifolia	Hartweg's golden sunburst	E	E	-	1B.1	Occurs almost entirely in non-native grasslands. Most of the occurrences (regions of distribution) are associated with Mima mound topography. Mima mounds are small hillocks a few feet in height that have formed in dense concentrations.	Species occurred historically within 3 miles of the project area. However, this occurrence is based on a single collection from 1847 that is presumed extirpated based on surveys in 1990 that did not find any suitable habitat. No suitable habitat is present in the project area to support this species. Therefore, occurrence of this species is unlikely.
Monardella venosa	Veiny monardella	-	-	-	1B.1	Occurs on heavy clay soils in cismontane woodland, and valley and foothill grassland habitats.	Species occurred historically within 3 miles of the project area. However, this occurrence is based on a single collection from 1854 that that may be extirpated, so further field work is warranted. No suitable habitat is present in the project area to support this species. Therefore, occurrence of this species is unlikely.
Delphinium recurvatum	Recurved larkspur	-	-	-	1B.2	Occurs on sandy or clay alkaline soils, generally in annual grasslands or in association with saltbush scrub or valley sink scrub habitats.	Species occurred historically within 3 miles of the project area. However, this occurrence is based on a single collection from 1900 that is presumed extirpated by development. No suitable habitat is present in the project area to support this species. Therefore, occurrence of this species is unlikely.
Invertebrates							
Branchinecta conservatio	Conservancy fairy shrimp	E	-	-	-	Endemic to vernal pools in California, and this species is restricted to the Central Valley except for one population along the central coast in Ventura County. Most sites inhabited by the conservancy fairy shrimp are relatively large and turbid vernal pools, often referred to as playa pools.	Species is not known to occur within 3 miles of the project area, and no suitable vernal pool habitats are present in the project area to support this species. Therefore, occurrence of this species is unlikely.
Branchinecta lynchi	Vernal pool fairy shrimp	T	-	-	-	Endemic to the grasslands of the Central Valley, central coast mountains, and south coast mountains in astatic, rain-filled, ephemeral pools. Microhabitat includes small, clear-water, sandstone-depression pools and grassed swales, earth slumps, or basalt-flow depression pools.	Species is not known to occur within 3 miles of the project area, and no suitable vernal pool habitats are present in the project area to support this species. Therefore, occurrence of this species is unlikely.
Lepidurus packardi	Vernal pool tadpole shrimp	E	-	-	-	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water.	Species occurs within 3 miles of the project area. However, no suitable vernal pool habitats are present in the project area to support this species. Therefore, occurrence of this species is unlikely.
Linderiella occidentalis	California linderiella	-	-	-		Found in a variety of natural and artificial, seasonally ponded habitat types, including vernal pools, swales, ephemeral drainages, stock ponds, reservoirs, ditches, backhoe pits, and ruts caused by vehicular activities.	Species occurs within 3 miles of the project area. However, no suitable vernal pool habitats are present in the project area to support this species. Therefore, occurrence of this species is unlikely.
Desmocerus californicus dimorphus	Valley elderberry longhorn beetle	T	-	-	-	Occurs only in the Central Valley, in association with black elderberry (*Sambucus nigra*).	Species is not known to occur within 3 miles of the project area. However, elderberry shrubs are found in scattered locations within the project area that may support this species. Therefore, occurrence of this species is moderate.
Amphibians/Reptiles							
Rana draytonii	California red-legged frog	T	-	SSC	-	Typically, a pond frog, found in or near water, but can wander overland at times, sometimes found in damp places far from water, including cool and moist bushes and thickets. Found active all year except in wetlands that dry out in summer, where frogs will estivate in moist refuges until the late fall rains.	Species is not known to occur within 3 miles of the project area, and no suitable habitats are present in the project area to support this species. Therefore, occurrence of this species is unlikely.
Thamnophis gigas	Giant garter snake	T	T	SSC	-	Marshes, sloughs, drainage canals, and irrigation ditches, especially around rice fields, and occasionally in slow-moving creeks of the Central Valley floor.	Species is not known to occur within 3 miles of the project area, and no suitable habitats are present in the project area to support this species. Therefore, occurrence of this species is unlikely.
Birds							
Coccyzus americanus	Yellow-billed cuckoo	T	E	-	-	Uses wooded habitat with dense cover and water nearby, including woodlands with low, scrubby vegetation; overgrown orchards; abandoned farmland; and dense thickets along streams and marshes.	Species occurred within 3 miles of the project area. However, nesting was reported from this location through the 1940s, with one possibly nesting cuckoo reported in 1976. No suitable habitat is present in the project area to support this species. Therefore, occurrence of this species is unlikely.
Buteo swainsoni	Swainson's hawk	-	T	-	-	Nest sites are typically located in riparian woodlands, lone trees, or groves of trees in agricultural fields. Forages over open areas, particularly in agricultural fields.	Known nest trees occur within 3 miles of the project area. No suitable nesting or foraging habitat is present within 0.25 mile of the project area. Therefore, the potential for occurrence of this species in the project area is low.

Appendix B. Special-status Species Identified from California Natural Diversity Database, U.S. Fish and Wildlife Service, and National Oceanic and Atmospheric Administration – National Marine Fisheries Service Records Searches
Biological Resources and Habitat Assessment, Yuba City WWTF Outfall and Diffuser Project, Sutter County, California

Scientific Name	Common Name	Status				Habitat Requirements	Potential for Occurrence
		Federal	State	CDFW	CNPS		
Riparia	Bank swallow	-	T	SSC	-	Lives in low areas along rivers, streams, ocean coasts, and reservoirs, nesting in vertical cliffs or banks.	Species occurs within 3 miles of the project area. Potentially suitable habitat could occur along limited portions of steep western bank of the Feather River. Potential for occurrence of this species is moderate.
Vireo bellii pusillus	Least Bell's vireo	E	E	SSC	-	Nests and forages almost exclusively in riparian woodlands. Nesting habitat typically consists of well-developed overstories and understories and low densities of aquatic and herbaceous cover. The understory frequently contains dense vegetation.	Species occurred historically within 3 miles of the project area. No suitable habitat is present in the project area to support this species. Therefore, occurrence of this species is unlikely.
Melospiza melodia	Song sparrow (Modesto population)	-	-	SSC	-	Found in a variety of open habitats, including tidal marshes, chaparral, agricultural fields, overgrown pastures, freshwater marsh and lake edges, forest edges, and suburbs. Nests are usually hidden in grasses or weeds, sometimes placed on the ground and occasionally as high as 15 feet; often near water.	Species occurred historically within 3 miles of the project area. However, this occurrence is based on a single collection from 1915. No suitable habitat is present in the project area to support this species. Therefore, occurrence of this species is unlikely.
Agelaius tricolor	Tricolored blackbird	-	T	SSC	-	Nests in dense vegetation near open water or in emergent wetland vegetation, especially cattails and tules, but sometimes in thickets of willow, blackberry, wild rose, and tall herbs.	Species occurs within 3 miles of the project area. No suitable habitat is present in the project area to support this species. Therefore, occurrence of this species is unlikely.
Elanus leucurus	White-tailed kite	-	-	CFP	-	Open groves, river valleys, marshes, and grasslands. Requires trees for perching and nesting, and open ground with high populations of rodents for foraging.	Species occurs within 3 miles of the project area. However, no suitable habitat is present in the project area to support this species. Therefore, occurrence of this species is unlikely.
Fish							
Hypomesus transpacificus	Delta smelt	T	E	-	-	Endemic to the upper Sacramento-San Joaquin Estuary of California, mainly inhabits the freshwater-saltwater mixing zone of the estuary except during its spawning season, when it migrates upstream to freshwater following winter first flush flow events.	Species is not known to occur within 3 miles of the project area, and no suitable habitat is present in the project area. Therefore, occurrence of this species is unlikely.
Oncorhynchus mykiss irideus	Steelhead (Central Valley DPS)	T	-	SSC	-	Occurs in rivers and streams with cold water, clean gravel of appropriate size for spawning, and suitable rearing habitat; typically rear in freshwater for 1 or more years before migrating to the ocean.	May pass through the Feather River adjacent to the project during spawning migrations and juvenile outmigration or rearing. Project is located within designated critical habitat. Therefore, this species has a high potential to occur in the project area.
Oncorhynchus tshawytscha	Chinook salmon (Central Valley spring-run ESU)	T	T	-	-	Occurs in low- to mid-elevation rivers and streams with cold water, clean gravel of appropriate size for spawning, and adequate rearing habitat; typically rear in freshwater for 1 or more years before migrating to the ocean.	May pass through the Feather River adjacent to the project during spawning migrations and juvenile outmigration or rearing. Project area is located within designated critical habitat. Therefore, this species has a high potential to occur in the project area.
Oncorhynchus tshawytscha	Chinook salmon (Sacramento River winter-run ESU)	E	E	-	-	Occurs in rivers and streams with clean, cold water over gravel beds with suitable water temperatures for spawning. Found in the Sacramento River below Keswick Dam, but spawns only in the Sacramento River.	Out-of-basin juveniles may occasionally use the Feather River for non-natal rearing from November through March. Therefore, this species is unlikely to occur in the project area.
Acipenser medirostris	North American green sturgeon (southern DPS)	T		SSC		Occurs in large mainstem rivers with cool water and cobble, clean sand, or bedrock for spawning. Subadult and adult green sturgeon spend most of their life in the coastal marine environment.	May pass through the Feather River adjacent to the project during spawning migrations and juvenile outmigration or rearing. Project is located within designated critical habitat. Therefore, this species has a high potential to occur in the project area.

Sources:

California Department of Fish and Wildlife (CDFW). 2020. *California Natural Diversity Database*. https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data.

National Oceanic and Atmospheric Administration – National Marine Fisheries Service (NOAA Fisheries). 2019. *California Species List Tools*. http://www.westcoast.fisheries.noaa.gov/maps_data/california_species_list_tools.html.

U.S. Fish and Wildlife Service (USFWS). 2020b. *IPaC Information for Planning and Consultation*. http://ecos.fws.gov/ipac/.

Status:

Federal Designations:
E = federally endangered
T = federally threatened

State Designations:
E = state endangered
T = state threatened

CDFW Designations:
CFP = fully protected species
SSC = species of special concern

Notes:

- = not applicable
CDFW = California Department of Fish and Wildlife
CNPS = California Native Plant Society
DPS = Distinct Population Segment
ESU = Evolutionarily Significant Unit