Willow Hill Dam Valve Replacement Project

Final

Initial Study/Mitigated Negative Declaration

August 2025 | 02576.00079.001

Prepared by:

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Folsom, CA 95630

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ACRONYMS AND ABBREVIATIONS

µg/m^3	micrograms per cubic meter
AB	Assembly Bill
amsl	above mean sea level
APE	Area of Potential Effects
APN	Assessor's Parcel Number
BCECP	Basic Construction Emissions Control Practices
bcf/yr	billion cubic feet per year
BMPs	Best Management Practices
BRA	Biological Resources Assessment
CAAQS	California ambient air quality standards
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Fire and Forestry
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CBC	California Building Code
CCAA	California Clean Air Act
CDFW	California Department of Fish and Wildlife
CDMG	California Division of Mines and Geology
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH_4	methane
CIPP	cured-in-place pipe
City	City of Folsom
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CO	carbon monoxide
CO_2e	carbon dioxide equivalent
CRA	Cultural Resources Assessment
CRHR	California Register of Historical Resources
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
CY	cubic yards

ACRONYMS AND ABBREVIATIONS (cont.)

dB	decibels
dBA	A-weighted decibels
DBH	Diameter at Breast Height
DOC	California Department of Conservation
DPM	diesel particulate matter
DSH	diameter at standard height
DSOD	Division of Safety of Dams
DTSC	California Department of Toxic Substance Control
DWR	Department of Water Resources
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FFD	Folsom Fire Department
FPASP	Folsom Plan Area Specific Plan
FPD	Folsom Police Department
General Plan	2035 City of Folsom General Plan
GHG	greenhouse gas
GPS	Global Positioning System
GWh	gigawatt hours
GWP	global warming potential
HCP	Habitat Conservation Plan
HCP/NCCP	Habitat Conservation Plan/Natural Community Conservation Plan
HELIX	HELIX Environmental Planning, Inc.
HFC	hydrofluorocarbons
HUC	Hydrologic Unit Code
HVAC	heating, ventilation, and air conditioning
Hz	hertz
in/sec	inches per second
IPaC	Information for Planning and Consultation
IPCC	Intergovernmental Panel on Climate Change
IS/MND	Initial Study/Mitigated Negative Declaration
lbs/day	pounds per day
LCI	Governor's Office of Land Use and Climate Innovation
L_{DN}	Day Night sound level
L_{EQ}	one-hour average noise level
LSAA	Lake and Streambed Alteration Agreement
L_V	vibration velocity level

ACRONYMS AND ABBREVIATIONS (cont.)

MBTA	Migratory Bird Treaty Act
MLRA	Major Land Resource Area
MMRP	Mitigation Monitoring and Reporting Program
mph	miles per hour
MRZ	mineral resource zones
MT	metric tons
MT/year	metric tons per year
MTP/SCS	2020 Metropolitan Transportation Plan/Sustainable Communities Strategy
N_2O	nitrous oxide
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NCIC	North Central Information Center
NEPA	National Environmental Policy Act
NO_x	nitrogen oxides
NO_2	nitrogen dioxide
NPDES	National Pollution Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSLU	noise-sensitive land uses
O_3	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
OHP	Office of Historic Preservation
OHWM	ordinary high water mark
OSC	Open Space and Conservation District
OSHA	Occupational Safety and Health Administration
P	Parks
PFC	perfluorocarbons
$PM_{2.5}$	fine particulate matter with a diameter of 2.5 microns or less
PM_{10}	coarse particulate matter with a diameter of 10 microns or less
ppm	parts per million
PPV	peak particle velocity
PQP	Public Quasi-Public
PRC	Public Resources Code
proposed project	Willow Hill Dam Valve Replacement Project
Procedures	State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State
RCC	Regional Commercial Center
ROG	Reactive Organic Gasses
RWQCB	Regional Water Quality Control Board

ACRONYMS AND ABBREVIATIONS (cont.)

SAA	Streambed Alteration Agreement
SACOG	Sacramento Area Council of Governments
SB	Senate Bill
SF_6	sulfur hexafluoride
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SLF	Sacred Lands File
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMARA	Surface Mining and Reclamation Act
SMUSD	Sacramento Municipal Utility Service District
SO_2	sulfur dioxide
S_{PL}	sound pressure level
SSC	Species of Special Concern
SUV	sport utility vehicle
SVAB	Sacramento Valley Air Basin
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	toxic air contaminants
TCR	Tribal Cultural Resources
UAIC	United Auburn Indian Community
U.S.	United States
U.S. 50	U.S. Highway 50
USACE	U.S. Army Corps of Engineers
USBR	U.S. Bureau of Reclamation
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey
VMT	vehicle miles traveled
VOC	volatile oranic compound
WQC	water quality control

1.0 INITIAL STUDY INFORMATION SHEET

1.	Project title:	Willow Hill Dam Valve Replacement Project
2.	Lead agency name and address:	City of Folsom Community Development Department 50 Natoma Street Folsom, CA 95630
3.	Contact person and phone number:	Kelsie Gugino, PE (916) 461-6166
4.	Project location:	321 Barnhill Drive, Folsom, CA 95630
5.	General plan designation:	Parks (P), Public and Quasi-Public Facility (PQP), and Regional Commercial Center (RCC)
6.	Zoning:	Open Space and Conservation District (OSC), General Commercial, Planned Development District (C-3 PD), and General Apartment, Planned Development District (R-4 PD)

7. Description of project:

The Willow Hill Dam Valve Replacement Project (proposed project) would replace, rehabilitate, and improve the existing dam infrastructure at the Willow Hill Reservoir in the City of Folsom. The proposed project would replace the upstream slide gate valve structure and downstream isolation valve; install a fenced raised landing and gate operator infrastructure at the top of the dam; and place rip rap and armoring on the dam face.

8. Surrounding land uses and setting:

The approximately 18.3-acre project site is located within the Willow Hill Reservoir Community Park and consists of the Willow Hill Reservoir, areas of open space, a construction staging area, and four potential construction access routes. Surrounding land uses include Folsom High School campus, a parking lot, residential development, and Iron Point Road to the north; residential development and Barnhill Drive to the east; residential development, open space, stands of oak trees, and U.S. Highway 50 to the south; and the Prairie City Stadium of Folsom High School and Prairie City Road to the west.

9. Other public agencies whose approval may be required (e.g., permits, financing approval, or participation agreement:

- U.S. Army Corps of Engineers (USACE)
- Central Valley Regional Water Quality Control Board (CVRWQCB)
- California Department of Fish and Wildlife (CDFW)
- Native American Heritage Commission (NAHC)
- Office of Historic Preservation (OHP)

- Department of Water Resources (DWR), Division of Safety of Dams (DSOD)

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

On February 3, 2025, formal invitations to participate in Assembly Bill (AB) 52 consultation were sent by the City to the three California Native American tribes named on the City's AB 52 contact list. The letters provided each tribe with the location and a brief description of the proposed project, contact information for the City's authorized representative, and a notification that the tribe has 30 days to request consultation. A subsequent project notification letter, dated February 25, 2025, was sent to Wilton Rancheria to reflect a correction in the Tribe's address. The tribes included:

- Wilton Rancheria (initial letter dated February 3, 2025, and subsequent letter dated February 25, 2025, to reflect corrected address)
- Ione Band of Miwok Indians (letter dated February 3, 2025)
- United Auburn Indian Community (UAIC) of the Auburn Rancheria (letter dated February 3, 2025)

The 30-day consultation window for the Ione Band of Miwok Indians and the UAIC of the Auburn Rancheria opened on February 3, 2025, and neither tribe requested formal consultation. Following receipt of the corrected letter, dated February 25, 2025, Ms. Vanesa Kremer of the Wilton Rancheria responded to the City on March 6, 2025, and requested to open consultation due to the project's location within the Tribe's ancestral and culturally affiliated territory.

On March 14, 2025, Wilton Rancheria sent a subsequent email to the City and stated that, although the project site is within the Tribe's ancestral territory, the Tribe did not have further comments. On March 18, 2025, the City corresponded with Wilton Rancheria regarding continued consultation, and on March 19, 2025, the Tribe stated that formal consultation was no longer requested. As such, consultation with Wilton Rancheria concluded on March 19, 2025.

2.0 INTRODUCTION

HELIX Environmental Planning, Inc. (HELIX) has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) in coordination with the City of Folsom (City) per the requirements of the California Environmental Quality Act (CEQA) of 1970 (Public Resources Code [PRC] Section 21000, et seq.), and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000, et seq.).

This IS/MND addresses the proposed Willow Hill Dam Valve Replacement Project (proposed project) and whether it may cause significant effects on the environment. This IS/MND focuses on any effects on the environment which are specific to the proposed project and were not analyzed as potentially significant effects in the Environmental Impact Report (EIR) prepared for the 2035 City of Folsom General Plan (General Plan), as amended (City 2018; City 2024). In particular, consistent with PRC §21083.3, this Initial Study focuses on any effects on the environment which are specific to the proposed project, or to the parcels on which the project would be located, which were not analyzed as potentially significant effects in the General Plan EIR, or for which substantial new information shows that identified effects would be more significant than described in the previous EIRs. For additional information regarding the relationship between the proposed project and the previous EIRs, see Section 6.0, *Previous Relevant Environmental Analysis*, of this IS/MND.

The IS/MND is also intended to assess whether any environmental effects of the project are susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or by other means [§15152(b)(2)] of the CEQA Guidelines. If such revisions, conditions, or other means are identified, they will be identified as mitigation measures. This IS/MND relies on CEQA Guidelines §15064 and 15064.4 in its determination of the significance of environmental effects. According to Section 15064, the finding as to whether a project may have one or more significant effects shall be based on substantial evidence in the record, and that controversy alone, without substantial evidence of a significant effect, does not trigger the need for an EIR.

3.0 PROJECT BACKGROUND

3.1 Purpose

The proposed project involves the Willow Hill Reservoir located within the Willow Hill Reservoir Community Park. The City of Folsom, in consultation with the Department of Water Resources, Division of Safety of Dams (DSOD), has determined that the upstream and downstream valve at the Willow Hill Reservoir dam have reached the end of their serviceable life and warrant rehabilitation and replacement. The purpose of this proposed project is to replace, rehabilitate, and improve the dam infrastructure to extend the serviceable life of the dam.

3.2 Supporting Documents

The following project specific technical analyses were used in preparation of this IS/MND and are incorporated by reference, as well as listed in Chapter 12.0, References:

- Air Quality and Greenhouse Gas Emissions Analysis, prepared by HELIX (April 2025)
- Biological Resources Assessment, prepared by HELIX (January 2025)
- Cultural Resources Assessment, prepared by HELIX (April 2025)

The project specific technical analyses listed above can be found on the City of Folsom Environmental and Water Resource's website under Engineering and Administration, CIP Projects, at this link: https://www.folsom.ca.us/government/environmental-water-resources/engineering-administration/cip-projects.

The project specific technical analyses are also available for review during normal business hours at the following location:

City of Folsom
Environmental and Water Resources Department
50 Natoma Street
Folsom, CA 95630

4.0 PROJECT DESCRIPTION

4.1 Project Location

The project site is located within the Willow Hill Reservoir Community Park, located at 321 Barnhill Drive in the City of Folsom, Sacramento County, California. The project site is conservatively estimated to contain 18.3 acres and is located on portions of three parcels situated in south/central City of Folsom. Parcel 1 (Assessor's Parcel Number [APN]: 072-2780-080), which comprises the Willow Hill Reservoir, is an estimated 18.87-acre parcel located south of Iron Point Road and west of Barnhill Drive. Parcel 2 (APN: 072-0010-112) comprises the southern portion of the Folsom High School campus and consists of 17.4 acres located northeast of Prairie City Road, adjacent to the south and west of Parcel 1, and west of Parcel 3. Lastly, Parcel 3 (APN: 072-2780-074), which comprises the southern portion of the Willow Hill Reservoir Community Park, is an estimated seven-acre parcel located north of U.S. Highway 50 (U.S. 50) and northwest of Blossom Rock Lane. The total acreage of the three parcels is approximately 43.27 acres. Figure 1 provides a regional map of the project site, and Figure 2 provides an aerial view of the project site. (Note: all figures are included in Appendix A to this IS/MND).

The project site is located in the Rancho Rio de los Americanos land grant and is depicted on the U.S. Geological Survey (USGS) *Folsom*, *California* 7.5-minute quadrangle map. The project site consists of the Willow Hill Reservoir, areas of open space, a potential construction staging area, and four potential construction access routes. Although the project site is conservatively estimated to contain 18.3 acres, project construction would primarily occur within the vicinity of the dam located at the southern edge of the reservoir.

4.2 Project Setting and Surrounding Land Uses

The elevation of the site ranges from approximately 297 feet above mean sea level (amsl) at the lowest point to approximately 330 feet amsl at the top of the dam. The perimeter of the reservoir remains fairly level. The Willow Hill Reservoir is fed by an inlet valve that receives raw water from Folsom Lake. A rip rap-lined spillway is located immediately east of the existing dam, which drains to the Rebel Hill Ditch. The Rebel Hill Ditch flows southwest just outside the southern boundary of the project site and terminates at Prairie City Road.

The project site is set within a primarily residential area of the City. Surrounding land uses include the Folsom High School campus, a parking lot, residential development, and Iron Point Road to the north;

residential development and Barnhill Drive to the east; residential development, open space, stands of oak trees, and U.S. 50 to the south; and the Prairie City Stadium of Folsom High School and Prairie City Road to the west.

4.3 Project Components

The proposed project would replace, rehabilitate, and improve the existing dam infrastructure at the Willow Hill Reservoir. The project would replace the upstream slide gate valve structure and the downstream isolation valve, install a fenced raised landing and gate operator infrastructure at the top of the dam, and place rip rap and armoring on the upstream face of the dam. No construction is proposed on the outfall pipe located south of the dam. The project components are discussed in further detail in the following sections.

Preconstruction Activities

Prior to construction, the northern inlet to the reservoir would be temporarily shut off to lower the water elevation of the reservoir via evaporation. The reservoir would be lowered to the maximum extent feasible to facilitate construction of the upstream slide gate valve. Temporary security chain link fencing would be installed around the perimeter of the proposed staging area to prevent unauthorized access during construction. Additionally, the pedestrian pathway along the top of the dam would be temporarily fenced off during construction.

An approximately 130-foot-long temporary coffer dam would be installed along the southern portion of the reservoir, approximately 30 feet north of the upstream slide gate valve, to allow for "construction in the dry." See Figure 3 for the proposed coffer dam alignment. Prior to installation of the temporary coffer dam, the area where the coffer dam would be installed would be cleared of any debris, such as silt or vegetation. The exact areas requiring silt or vegetation removal would be quantified once the water elevation of reservoir is lowered. Then, a crane would install modular steel frames into the reservoir bed, followed by installation of an impervious PVC fabric liner onto the frames to erect the temporary coffer dam. Once installed, it is anticipated that the water elevation would stand at a maximum of 10 feet against the temporary coffer dam. Finally, the construction area between the coffer dam and the face of the reservoir dam would be dewatered using pumps.

Following installation of the coffer dam and dewatering of the construction area, an excavator would be used to remove any debris and/or compacted soil on and around the existing upstream slide gate valve to allow for access to the gate valve structure. The exact areas requiring clean-up and soil removal would be quantified following dewatering of the construction area.

Upstream Slide Gate Valve

Demolition of the upstream slide gate valve would involve removal of the existing slide gate valve structure, concrete base, and exposed steel dock supports. See Figures 4 and 5 for the demolition and vegetation removal details. The concrete headwall and other concrete components of the valve system would remain in place. Any remaining exposed bolts would be cut flush with the concrete face and coated with epoxy.

Construction of the new upstream slide gate valve structure would involve installation of a crushed rock aggregate base, a new gate valve frame, an 18-inch steel inlet pipe, and an 18-inch slide gate valve. Crushed rock aggregate would be installed at the base of the existing concrete headwall to provide a

foundation for the new slide gate valve structure, which would be grouted in place. A new 18-inch steel inlet pipe would be installed within the new gate valve frame to connect to the existing 18-inch outlet pipe. An 18-inch slide gate valve would then be installed over the new inlet pipe. Finally, a removable rack would be installed over the slide gate valve structure to protect and maintain the integrity of the slide gate structure. See Figure 6 for the proposed site plans.

Downstream Isolation Valve and Outlet Pipe

The downstream isolation valve, located approximately 75 feet downstream of the face of the dam, is difficult to operate and warrants replacement. The purpose of the isolation valve is to control the water flow between the upstream slide gate valve and the outfall pipe. During construction of this project component and prior to commencement of the upstream slide gate valve replacement, the contractor would assess the condition of the existing underground segment of the 18-inch outlet pipe between the upstream inlet valve and downstream isolation valve. During construction, if it is determined that this segment of the outlet pipe warrants replacement, then a cured-in-place pipe (CIPP) would be installed within the existing outlet pipe. The CIPP method is a trenchless technique that would involve inserting a resin-saturated felt tube into the existing outlet pipe. The tube is then expanded and cured using heat and/or steam to form a seamless and jointless pipe within the existing outlet pipe.

Raised Landing and Valve Operator Infrastructure

A 28-square-foot raised concrete landing would be installed at the top of the dam to provide access to the proposed slide gate valve operator infrastructure. The exact location and elevation of the proposed landing would be finalized based on the topography of the dam following completion of the project components discussed above. The raised landing would be installed adjacent to the existing pedestrian trail at the top of the dam and would be enclosed in six-foot-high chain link fence to prevent unauthorized access into the operator area.

The new gate operator infrastructure would be installed within the enclosed landing. An approximately 58-foot-long, two-foot-wide reinforced concrete grade beam would be constructed on the dam face between the raised landing and the upstream valve infrastructure. Existing soil and sediment along the dam face in the vicinity of the proposed grade beam would be removed prior to laying concrete. Soil and sediment removal would be limited to the maximum extent feasible to preserve the face of the dam. The purpose of the grade beam is to provide structural support for the new valve stem guide and vent pipe and provide access to the upstream slide gate valve for maintenance and operation activities.

A valve operating stem guide would be installed along the length of the new grade beam and would connect the upstream slide gate valve to the gate operator in the enclosed landing. Additionally, a three-quarter-inch vent pipe would be installed directly to the new grade beam, which would allow the water column to separate upon closure of the slide gate valve.

Rip Rap and Armoring

Due to the age of the dam, erosion of the upstream dam face has occurred and warrants improvement to increase the integrity and serviceable life of the dam. Low points in the dam face would be infilled with lean concrete and the dam face would be armored with rip rap and/or weathered bedrock. Additional rip rap and/or weathered bedrock would be installed adjacent to the new grade beam. The extent and exact location of the proposed infill and armoring would be determined based on the condition of the dam face following installation of the proposed infrastructure improvements.

4.4 Construction and Staging

Construction of the proposed project would be completed in a single phase. Construction activities would take place during daytime hours between 7 a.m. and 6 p.m. on weekdays and between 8 a.m. and 5 p.m. on Saturdays, in accordance with Section 8.42.060 of the Folsom Municipal Code. No construction would be permitted to take place on Sundays or holidays (City 2025). Construction would last a total of approximately six months, including approximately three months to lower the elevation of the reservoir and approximately three months for project construction.

Construction is anticipated to require minimal construction vehicles including a crane, an excavator, a concrete truck, a dump truck, and a flatbed truck. Other construction equipment would include a welder, a compressor, and other hand tools. If it is determined that a CIPP would need to be installed within the existing 18-inch outlet pipe, then an additional water supply truck and water heater would be required for this project component. During construction of the proposed project, it is anticipated that up to six construction workers would be on site.

Construction staging is proposed approximately immediately northwest of the Willow Hill Reservoir dam between the existing trail and reservoir. Potential access routes to the construction area include existing paved, gravel, and dirt trails ranging from approximately 10 feet to 25 feet in width and are located to the east of the dam off of Barnhill Drive; to the southeast of the dam off of Blossom Rock Lane; to the southwest of the dam off of Prairie City Road; and along the western perimeter of the reservoir off of a Folsom High School parking lot. Improvements to the proposed construction access routes are not anticipated. However, if the access routes are determined to be of insufficient width to accommodate the anticipated construction equipment, minor improvements such as vegetation removal or grading/widening of the existing trails could occur.

4.5 Operation and Maintenance

Once construction of the proposed dam infrastructure improvements is completed, the City would conduct standard operations and maintenance activities. Operation of the dam would be periodic in nature and would typically involve two City staff at a given time. Standard operation activities would involve City staff accessing the slide gate valve operator infrastructure and exercising the upstream slide gate valve and downstream isolation valve approximately twice per year. Occasional maintenance activities would involve periodic testing of the valve as well as general maintenance to the valve operator infrastructure as needed. It is anticipated that access to the dam during operation and maintenance would be via the existing trails.

4.6 General Plan Land Use Designation and Zoning

The City of Folsom 2035 General Plan, as amended, is a long-term planning document that guides growth and land development in the City. It provides the foundation for establishing community goals and supporting policies, and directs appropriate land uses for all land parcels within the City. Under the General Plan, Parcel 1 is designated Parks (P), Parcel 2 is designated Public and Quasi-Public Facility (PQP), and Parcel 3 is designated Regional Commercial Center (RCC).

Developed land uses in the City of Folsom are regulated specifically by the City's Zoning Code (Title 17 of the Folsom Municipal Code), in addition to the other adopted regulations and programs that apply to all proposed development within the City. In more detail than the General Plan, the Zoning Code regulates

land uses on a parcel-by-parcel basis throughout the City. To achieve this regulation, the City assigns each parcel within the City to a zoning district, such as a district for single-family homes. Regulations for each district apply equally to all properties within the district. Parcel 1 is zoned Open Space and Conservation District (OSC); Parcel 2 is zoned General Commercial, Planned Development District (C-3 PD); and Parcel 3 is zoned General Apartment, Planned Development District (R-4 PD).

4.7 City of Folsom Municipal Code

The City regulates many aspects of construction and development through requirements and ordinances established in the Folsom Municipal Code, including but not limited to the codes summarized in Table 1. These requirements and ordinances of the Folsom Municipal Code are hereby incorporated by reference into the proposed project description as though fully set forth herein. Copies of these documents may be reviewed at the City of Folsom, Office of the City Clerk, 50 Natoma Street, Folsom, California 95630.

TABLE 1: CITY OF FOLSOM MUNICIPAL CODE REGULATING CONSTRUCTION

CODE SECTION	CODE NAME	EFFECT OF CODE
8.42	Noise Control	Establishes interior and exterior noise standards that may not be exceeded within structures, including residences; establishes time periods for construction operations.
8.70	Stormwater Management and Discharge Control	Establishes conditions and requirements for the discharge of urban pollutants and sediments to the storm-drainage system; requires preparation and implementation of Stormwater Pollution Prevention Plans.
9.34	Hazardous Materials Disclosure	Defines hazardous materials; requires filing of a Hazardous Material Disclosure Form by businesses that manufacture, use, or store such materials.
9.35	Underground Storage of Hazardous Substances	Establishes standards for the construction and monitoring of facilities used for the underground storage of hazardous substances and establishes a procedure for issuance of permits for the use of these facilities.
12.16	Tree Preservation	Regulates the cutting or modification of trees, including oaks and specified other trees; requires a Tree Permit prior to cutting or modification; establishes mitigation requirements for cut or damaged trees.
13.26	Water Conservation	Prohibits the wasteful use of water; establishes sustainable landscape requirements; defines water use restrictions.
14.29	Grading Code	Requires a grading permit prior to the initiation of any grading, excavation, fill or dredging; establishes standards, conditions, and requirements for grading, erosion control, stormwater drainage, and revegetation.
14.32	Flood Damage Prevention	Restricts or prohibits uses that cause water or erosion hazards, or that result in damaging increases in erosion or in flood heights; requires that uses vulnerable to floods be protected against flood damage; controls the modification of floodways; regulates activities that may increase flood damage or that could divert floodwaters.

Source: City 2025

5.0 REQUIRED PERMITS AND APPROVALS

A list and brief description of the approvals and/or regulatory permits required to implement the proposed project is provided below. This environmental document is intended to address the environmental impacts associated with all the following decision actions and approvals:

5.1 City of Folsom

- **Adoption of the Initial Study, Mitigated Negative Declaration, and Mitigation Monitoring and Reporting Program:** The City of Folsom Planning Commission will act as the lead agency as defined by CEQA and will have authority to determine if this IS/MND is adequate under CEQA.

- **Project Approval:** The City of Folsom City Council will consider approval of the proposed project.

5.2 Other Agencies

- **California Department of Fish and Wildlife (CDFW):** Obtain a Fish and Game Code Section 1602 Lake and Streambed Alteration Agreement from the CDFW (Region 2, North Central Region).

- **Central Valley Regional Water Quality Control Board (CVRWQCB):** Obtain a Clean Water Act (CWA) Section 401 Water Quality Certification from the CVRWQCB (Region 5).

- **California Department of Water Resources (DWR), Division of Safety of Dams (DSOD):** A condition of DSOD's approval of the proposed project requires CEQA compliance.

- **U.S. Army Corps of Engineers (USACE):** Obtain authorization under a CWA Section 404 Nationwide Permit from the USACE to discharge dredged or fill material.

6.0 PREVIOUS RELEVANT ENVIRONMENTAL ANALYSIS

6.1 City of Folsom General Plan

The City of Folsom 2035 General Plan (General Plan), as amended, provides a framework for the long-range development of Folsom (City 2024). The Program EIR for the General Plan provides relevant policy guidance for this environmental analysis (City 2018). The EIR evaluated the environmental impacts that could result from implementation of the City of Folsom 2035 General Plan. The Program EIR is intended to provide information to the public and to decision makers regarding the potential effects of adoption and implementation of the General Plan.

6.2 Tiering

"Tiering" refers to the relationship between a program-level EIR (where long-range programmatic cumulative impacts are the focus of the environmental analysis) and subsequent environmental analyses such as the subject document, which focus primarily on issues unique to a smaller project within the larger program or plan. Through tiering, a subsequent environmental analysis can incorporate, by reference, discussion that summarizes general environmental data found in the program EIR that establishes cumulative impacts and mitigation measures, the planning context, and/or the

regulatory background. These broad-based issues need not be reevaluated subsequently, having been previously identified and evaluated at the program stage.

Tiering focuses the environmental review on the project-specific significant effects that were not examined in the prior environmental review, or that are susceptible to substantial reduction or avoidance by specific revisions in the project, by the imposition of conditions or by other means. Section 21093(b) of the Public Resources Code requires the tiering of environmental review whenever feasible, as determined by the Lead Agency.

In the case of the proposed project, this Initial Study tiers from the EIR for the City of Folsom General Plan, adopted in 2018. The Folsom General Plan, as amended, is a project that is related to the proposed project and, pursuant to §15152(a) of the CEQA Guidelines, tiering of environmental documents is appropriate. CEQA Guidelines §15152(e) specifically provides that:

"[w]hen tiering is used, the later EIRs or Negative Declarations shall refer to the prior EIR and state where a copy of the prior EIR may be examined. The later [environmental document] should state that the Lead Agency is using the tiering concept and that the [environmental document] is being tiered with the earlier EIR."

The above-mentioned EIRs can be reviewed at the following location:

City of Folsom
Community Development Department
50 Natoma Street
Folsom, CA 95630

6.3 Incorporation of the Folsom General Plan by Reference

Due to various references to the Folsom General Plan EIR in this proposed project, and to its importance relative to understanding the environmental analysis that has occurred to date with respect to development in the Folsom area, the Folsom General Plan EIR is hereby incorporated by reference pursuant to CEQA Guidelines Section 15150.

7.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that may require mitigation to reduce the impact from "Potential Impact" to "Less than Significant" as indicated by the checklist on the following pages.

An Initial Study is conducted by a Lead Agency to determine if a project may have a potentially significant effect on the environment (CEQA Guidelines Section 15063). An EIR must be prepared if an Initial Study indicates that further analysis is needed to determine whether a significant impact will occur or if there is substantial evidence in the record that a project may have a significant effect on the environment (CEQA Guidelines Section 15064[f]).

☐ Aesthetics	☐ Agriculture and Forestry 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

8.0 DETERMINATION

On the basis of this initial evaluation:

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

Signature

6/3/2025
Date

Marcus Yasutake
Printed Name

Environmental & Water Resources Director
Title

9.0 ENVIRONMENTAL INITIAL STUDY CHECKLIST

Responses to the following questions and related discussion indicate if the proposed project will have or will potentially have a significant adverse impact on the environment, either individually or cumulatively with other projects. All phases of project planning, implementation, and operation are considered. Mandatory Findings of Significance are addressed in Section 9.XXI.

A. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

B. "Less Than Significant With Mitigation" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced).

C. "Less Than Significant Impact" applies where the project creates no significant impacts, only less than significant impacts.

D. "No Impact" applies where a project does not create an impact in that category. "No Impact" answers do not require an explanation if they are adequately supported by the information sources cited by the lead agency which show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project specific screening analysis).

I. AESTHETICS

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

Environmental Setting

The project site is located within the Willow Hill Reservoir Community Park in the City of Folsom. Built structures on Willow Hill Reservoir Community Park includes play equipment, a restroom building, a floating fishing dock, picnic tables, benches. The park contains existing paved, gravel, and dirt pathways and various trees and vegetation that contribute to the overall visual aesthetic of the park. The project site is surrounded by the Folsom High School campus, a parking lot, residential development, and Iron Point Road to the north; residential development and Barnhill Drive to the east; residential development, open space, stands of oak trees, and U.S. 50 to the south; and the Prairie City Stadium of Folsom High School and Prairie City Road to the east. The elevation of the site ranges from approximately 310 feet amsl at the intersection of the proposed southwestern access route and Prairie City Road, to approximately 340 feet amsl at the top of the dam. The perimeter of the reservoir ranges from approximately 325 to 340 feet amsl.

Chapter 17.59.040(H)(1) of the Folsom Municipal Code regulates signs within scenic corridors (City 2025). This chapter also designates Prairie City Road from Blue Ravine Road south to U.S. 50 as a scenic corridor; this segment of Prairie City Road is located approximately 600 feet west of the dam. Additionally, Sacramento County's 2030 General Plan designates U.S. 50 as scenic corridor, located approximately 0.25 mile south of the dam (City 2018). There are no designated State scenic highways within the City of Folsom or in the vicinity of the proposed project; the nearest officially designated State scenic highway is the segment of U.S. 50 from the City of Placerville to Echo Summit, beginning approximately 20 miles east of the project site (Caltrans 2025).

Impact Analysis

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

No Impact. The proposed project would not have a substantial adverse effect on a scenic vista. A scenic vista is defined as a viewpoint that provides an expansive view of a highly valued landscape for the benefit of the public. Neither the project site nor the surrounding areas are designated scenic vistas due to the existing development and suburban environment typical of the area. Further, neither the project site, nor views to or from the project site, have been designated as an important scenic resource by the City of Folsom or any other public agency (City 2018). Therefore, the proposed project would not interfere with or degrade a scenic vista. No impact would occur, and no mitigation would be necessary.

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

Less than Significant Impact. Implementation of the proposed project would not adversely affect scenic resources within a designated scenic highway. The proposed project would replace the upstream slide gate valve structure; demolish the existing isolation valve and replace the exposed outlet pipe and downstream valve stem; install a raised landing and gate operator infrastructure at the top of the dam; and place rip rap and armoring on the upstream face of the dam. There are no designated State scenic highways within the City of Folsom or in the vicinity of the proposed project. However, the Folsom Municipal Code designates Prairie City Road from Blue Ravine Road south to U.S. 50 as a scenic corridor, located approximately 600 feet west of the dam, and Sacramento County's 2030 General Plan designates U.S. 50 as scenic corridor, located approximately 0.25 mile south of the dam (City 2018). Views of the project site would be obscured from these locally designated scenic corridors by the surrounding land uses and the existing trees, vegetation, and natural topography of the project site. Therefore, the impact would be less than significant, and no mitigation would be necessary.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less than Significant Impact. The existing visual character of the area surrounding the project site is primarily defined by recreational facilities of the Willow Hill Reservoir Community Park, residential development, and the Folsom High School campus and Prairie City Stadium. The project site is located within the Willow Hill Reservoir Community Park and includes areas of open space, existing pedestrian pathways, park amenities and playground equipment, and the Willow Hill Reservoir. As discussed above in question b), views of the project site would be largely obscured by the existing trees, vegetation, and natural topography of the project site.

Construction of the proposed project would temporarily introduce construction equipment and security fencing in the area, which would be removed following completion of the project. Project construction would not substantially degrade the existing visual character or quality of public views of the site and its surrounding. Following construction, visible components of the proposed infrastructure improvements would include the fenced landing and valve operator infrastructure located at the top of the dam, and the proposed rip rap and armoring of the dam face. The valve operator system would be located on a 28-square-foot concrete landing and would be fenced with a six-foot-tall chain link fence. However, due

to the location and urban setting of the project site, implementation of the proposed project would not substantially alter the existing visual character of the site and surrounding areas within the Willow Hill Reservoir. Therefore, the impact would be less than significant, and no mitigation would be necessary.

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

Less than Significant Impact. Existing sources of light in the area include streetlamps along Barnhill Drive and Prairie City Road, floodlights from the Prairie City Stadium, and sources of light associated with the surrounding residential developments. In accordance with the City of Folsom's Noise Ordinance, construction of the proposed project would take place during daytime hours between 7 a.m. and 6 p.m. on weekdays and between 8 a.m. and 5 p.m. on Saturdays. Since construction would primarily occur during daylight hours, no light sources are anticipated to be used during project construction. Additionally, no light sources would be required for project operation; therefore, no permanent new sources of light would be introduced by the proposed project. Therefore, the impact would be less than significant, and no mitigation would be necessary.

II. AGRICULTURE AND FORESTRY RESOURCES

		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:					
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g])?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non- forest use?	☐	☐	☐	☒

Environmental Setting

No agricultural activities or timber management occur on the project site or in adjacent areas and the site is not designated for agricultural or timberland uses. The California Important Farmlands Map prepared for Sacramento County by the California Department of Conservation (DOC) classifies the western edge of the project site as Urban and Built-Up Land; the reservoir and northern portion of the project site as Other Land; and the southern portion of project site as Grazing Land (DOC 2024a).

According to the DOC, Urban and Built-Up Land is classified as land occupied by structures with a building density of at least one unit to 1.5 acres, or approximately six structures to a 10-acre parcel. Other Land is classified as land not included in any other mapping category; common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than 40 acres. Lastly, grazing Land is classified as land on which vegetation is suited to the grazing of livestock (DOC 2024a).

Impact Analysis

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

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

No Impact. The project site is not considered Prime Farmland, Unique Farmland, or Farmland of Statewide importance (Farmland), pursuant to the Farmland Mapping and Monitoring Program of the California Department of Conservation (DOC 2024a). The project site is not zoned for agricultural use or enacted into a Williamson Act contract. No impact would occur, and no mitigation would be necessary for questions a) and b).

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

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

No Impact. No portion of the City or the project site are zoned for forest land, timberland, or zoned Timberland Production. Therefore, no impact would occur, and no mitigation would be necessary for questions c) and d).

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

No Impact. As discussed under questions a) through d) above, the project site does not contain agricultural or forest land uses and would therefore not convert Farmland or to non-agricultural use or forest land to non-forest use. The southern portion of the project site has been identified as Grazing Land and is surrounded by Urban and Built-Up Land to the east, south, and west. This area is considered to be highly disturbed with marginal grazing opportunities due to its proximity to a main road and surrounding urban development. No important agricultural resources or activities exist on the project site. Therefore, no impact would occur, and no mitigation would be necessary.

III. AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
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?	☐	☐	☒	☐

This section is based on the Air Quality and Greenhouse Gas Emissions Analysis prepared by HELIX in April 2025 for the proposed project (HELIX 2025a).

Environmental Setting

Climate in the Folsom area is characterized by hot, dry summers and cool, rainy winters. During summer's longer daylight hours, plentiful sunshine provides the energy needed to fuel photochemical reactions between Oxides of Nitrogen (NO_X) and Reactive Organic Gasses (ROG), which result in Ozone (O_3) formation. High concentrations of O_3 are reached in the Folsom area due to intense heat, strong and low morning inversions, greatly restricted vertical mixing during the day, and daytime subsidence that strengthens the inversion layer.

The City of Folsom lies within the eastern edge of the Sacramento Valley Air Basin (SVAB). The Sacramento Metropolitan Air Quality Management District (SMAQMD) is responsible for implementing emissions standards and other requirements of federal and state laws in the project area. As required by the California Clean Air Act (CCAA), SMAQMD has published various air quality planning documents as discussed below to address requirements to bring the District into compliance with the federal and state ambient air quality standards. The Air Quality Attainment Plans are incorporated into the State Implementation Plan (SIP), which is subsequently submitted to the U.S. Environmental Protection Agency (EPA), the federal agency that administrates the Federal Clean Air Act of 1970, as amended in 1990.

Criteria Pollutants

Air quality at the regional level is defined by ambient air concentrations of specific pollutants, identified Criteria pollutants, are defined and regulated by State and federal law as a risk to the health and welfare

of the public, and are categorized into primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources, including carbon monoxide (CO); ROG, also known as volatile organic compounds (VOC); [1] NO_X; sulfur dioxide (SO_2); coarse particulate matter (PM_{10}); fine particulate matter ($PM_{2.5}$); and lead. Of these primary pollutants, CO, SO_2, PM_{10}, $PM_{2.5}$, and lead are criteria pollutants. ROGs and NO_X are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. The principal secondary criteria pollutants are ozone and nitrogen dioxide (NO_2). In addition to being primary pollutants, PM_{10} and $PM_{2.5}$ can be secondary pollutants formed by chemical reactions in the atmosphere.

Ambient air quality is described in terms of compliance with State and national standards and the levels of air pollutant concentrations considered safe to protect the public health and welfare. These standards are designed to protect people most sensitive to respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and people engaged in strenuous work or exercise. The USEPA has established national ambient air quality standards (NAAQS) for criteria pollutants. As permitted by the CAA, California has adopted the more stringent California ambient air quality standards (CAAQS) and expanded the number of regulated air pollutant constituents.

The California Air Resources Board (CARB) is required to designate areas of the State as attainment, nonattainment, or unclassified for any State standard. An “attainment” designation for an area signifies that pollutant concentrations do not violate the standard for that pollutant in that area. A “nonattainment” designation indicates that a pollutant concentration violated the standard at least once.

The project site is located in Sacramento County, which lies within the SVAB. The air quality attainment status of Sacramento County is shown in Table 2, *Sacramento County Attainment Status*. Sacramento County is designated as nonattainment for ozone and PM_{10} with respect to CAAQS and is designated as nonattainment for ozone and $PM_{2.5}$ with respect to NAAQS. Sacramento County is designated as attainment or unclassified for all other criteria pollutant NAAQS and CAAQS.

TABLE 2: SACRAMENTO COUNTY ATTAINMENT STATUS

Pollutant	State of California Attainment Status	Federal Attainment Status
Ozone (1-hour)	Nonattainment	No Federal Standard
Ozone (8-hour)	Nonattainment	Nonattainment
Coarse Particulate Matter (PM_{10})	Nonattainment	Attainment
Fine Particulate Matter ($PM_{2.5}$)	Attainment	Nonattainment
Carbon Monoxide (CO)	Attainment	Attainment/Unclassified
Nitrogen Dioxide (NO_2)	Attainment	Attainment/Unclassified
Lead	Attainment	Attainment/Unclassified
Sulfur Dioxide (SO_2)	Attainment	Attainment/Unclassified
Sulfates	Attainment	No Federal Standard
Hydrogen Sulfide	Unclassified	No Federal Standard

Source: CARB 2025a

[1] CARB defines and uses the term ROGs while the U.S. Environmental Protection Agency (USEPA) defines and uses the term VOCs. The compounds included in the lists of ROGs and VOCs and the methods of calculation are slightly different. However, for the purposes of estimating criteria pollutant precursor emissions, the two terms are often used interchangeably.

Toxic Air Contaminants

Toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or in serious illness, or that may pose a present or potential hazard to human health. TACs can cause long-term chronic health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage, or short-term acute effects such as eye-watering, respiratory irritation (a cough), runny nose, throat pain, and headaches. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For carcinogenic TACs, there is no level of exposure that is considered safe, and impacts are evaluated in terms of overall relative risk expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

The Health and Safety Code (Section 39655[a]) defines TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." All substances that are listed as hazardous air pollutants pursuant to subsection (b) of Section 112 of the CAA (42 United States Code Sec. 7412[b]) are designated as TAC. Under State law, the California Environmental Protection Agency (CalEPA), acting through CARB, is authorized to identify a substance as a TAC if it determines the substance is an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or that may pose a present or potential hazard to human health.

Diesel Particulate Matter

Diesel engines emit a complex mixture of air pollutants, including both gaseous and solid materials. The solid material in diesel exhaust is referred to as diesel particulate matter (DPM). Almost all DPM is 10 microns or less in diameter, and 90 percent of DPM is 2.5 microns or less in diameter (CARB 2025b). Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung. In 1998, CARB identified DPM as a TAC based on published evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects. DPM has a notable effect on California's population—it is estimated that about 70 percent of the total known cancer risk related to air toxins in California is attributable to DPM (CARB 2025b).

Sensitive Receptors

CARB and the Office of Environmental Health Hazard Assessment (OEHHA) have identified the following groups of individuals as the most likely to be affected by air pollution (sensitive receptors): adults over 65, children under 14, infants (including in utero in the third trimester of pregnancy), and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis (CARB 2005; OEHHA 2015). Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved and are referred to as sensitive receptor locations. Examples of these sensitive receptor locations are residences, schools, hospitals, and daycare centers.

The closest existing sensitive receptor location to the project site is Folsom High School stadium located approximately 25 feet west of the project site, and existing multi-family residences located approximately 15 feet east of the project site.

Methodology and Assumptions

Criteria pollutant and precursor emissions, and greenhouse gas (GHG) emissions for the project construction activities were calculated using the California Emissions Estimator Model (CalEEMod), Version 2022.1. CalEEMod is a Statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify criteria pollutant emissions associated with both construction and operations from a variety of land use projects. The model was developed for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California air districts. CalEEMod allows for the use of default data (e.g., emission factors, trip lengths, meteorology, source inventory) provided by the various California air districts to account for local requirements and conditions, and/or user-defined inputs. The model calculates emissions of criteria pollutants, ozone precursors, and GHGs. The calculation methodology and input data used in CalEEMod can be found in the CalEEMod User's Guide Appendices A, C, and D (CAPCOA 2022). The input data and subsequent construction emission estimates for the proposed project are discussed below.

Construction Assumptions

Construction of the proposed project is anticipated to begin in August 2026 and take approximately 90 working days to complete. Per the project engineer, in order to start construction, the water level must be low enough such that the portable dam can function. The construction activity schedule was estimated using data provided by the project engineer and is outlined in Table 3, *Project Construction Schedule*, below.

TABLE 3: PROJECT CONSTRUCTION SCHEDULE

Construction Activity	Construction Start Date	Construction End Date	Number of Working Days
Site Preparation	8/1/2026	8/24/2026	16
Demolition	8/25/2026	9/7/2026	10
Grading	9/8/2026	9/14/2026	5
Aboveground Infrastructure	9/15/2026	11/9/2026	40
Underground Utilities (e.g. trenching)	11/10/2026	12/2/2026	17

Source: HELIX 2025a.

Per the project engineer, rather than replacing a pipeline using the traditional trenching method, existing pipelines could be replaced using the CIPP method. However, construction equipment use and emissions from the CIPP method would be less intensive than the traditional trenching method. Therefore, it was conservatively assumed the traditional trenching method would be used for all project pipeline work.

Construction equipment for each construction activity was estimated based on data provided by the project engineer and the anticipated construction activities. Table 4, *Project Construction Equipment*, below, presents a summary of the assumed equipment that would be involved in each activity of construction. Off-highway trucks included in the modeling would be water trucks or dump drunks for the demolished materials.

TABLE 4: PROJECT CONSTRUCTION EQUIPMENT

Construction Activity	Equipment	Number
Site Preparation	Tractors/Loaders/Backhoes	1
	Cranes	1
	Excavators	1
	Off-Highway Trucks	1
Demolition	Tractors/Loaders/Backhoes	1
	Cranes	1
	Excavators	1
	Off-Highway Trucks	2
Grading	Tractors/Loaders/Backhoes	1
	Excavators	1
	Off-Highway Trucks	1
Aboveground Infrastructure	Tractors/Loaders/Backhoes	1
	Cranes	2
	Forklifts	2
Underground Utilities (e.g. trenching)	Excavators	1

Source: HELIX 2025a

Per the project engineer, approximately two tons of debris would be demolished and exported to a local recycling facility. Additionally, approximately four cubic yards (CY) of soil would be exported during grading. Construction emissions modeling assumes the implementation of dust mitigation (watering exposed areas twice per day). Worker, vendor, and hauling trips were estimated based on CalEEMod defaults. Aboveground infrastructure worker trips were estimated based on the construction equipment used for that construction activity. Additionally, one hauling trip per day under demolition was added for the export of demolished debris.

Operational Assumptions

Operation of the proposed project would involve the continued maintenance of the dam infrastructure and the Willow Hill Reservoir. Standard operation activities would involve City staff accessing the slide gate valve operator infrastructure and exercising the upstream slide gate valve approximately twice per year. Occasional maintenance activities would involve periodic testing of the valve as well as general maintenance to the valve operator infrastructure as needed. Staff that currently maintain the dam and Willow Hill Reservoir, typically two City staff at a given time, would perform the maintenance tasks required for the proposed project and no new employees would be required for the proposed project. Operation of the proposed project would not require backup generators. As changes in project operational emissions would be negligible compared to operational emissions from the existing dam and Willow Hill Reservoir, project operational emissions were not quantified.

Significance Criteria

According to Appendix G of the CEQA Guidelines, a project would have a significant air quality environmental impact if it would:

1. Conflict with or obstruct implementation of the applicable air quality plan; or,

2. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard; or,

3. Expose sensitive receptors to substantial pollutant concentrations; or,

4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Appendix G of the CEQA Guidelines states that the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the above determinations. SMAQMD has established significance thresholds to assess the regional and localized impacts of project-related air pollutant emissions. The significance thresholds are updated, as needed, to appropriately represent the most current technical information and attainment status in Sacramento County.

Table 5, *SMAQMD Thresholds of Significance*, presents the most current significance thresholds, including regional daily thresholds for short-term construction and long-term operational emissions; maximum incremental cancer risk and hazard indices for TACs; and maximum ambient concentrations for exposure of sensitive receptors to localized pollutants. A project with daily emission rates, risk values, or concentrations below these thresholds is generally considered to have a less than significant effect on air quality (SMAQMD 2020a).

TABLE 5: SMAQMD THRESHOLDS OF SIGNIFICANCE

Pollutant	Construction	Operation
Mass Daily Thresholds (pounds per day)		
ROG	None	65
NO_X	85	65
PM_{10}	80[1]	80[1]
$PM_{2.5}$	82[1]	82[1]
Toxic Air Contaminants		
TACs	Maximum Incremental Cancer Risk ≥ 10 in 1 million Chronic & Acute Hazard Index ≥ 1.0 (project increment)	
Ambient Air Quality for Criteria Pollutants		
NO_2	1-hour average ≥ 0.18 ppm Annual average ≥ 0.03 ppm	
CO	1-hour average ≥ 20.0 ppm (State) 8-hour average ≥ 9.0 ppm (State/federal)	
SO_2	1-hour average ≥ 0.075 ppm 24-hour average ≥ 0.04 ppm	
Lead	1.5 µg/m³ 30-day average	

Source: SMAQMD 2020a

[1] PM thresholds are zero (0) unless all feasible Best Available Control Practices/Best Management Practices are applied.

lbs/day = pounds per day; VOC = volatile organic compound; NO_X = nitrogen oxides; CO = carbon monoxide; PM_{10} = respirable particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = fine particulate matter with a diameter of 2.5 microns or less; SO_X = sulfur oxides; TACs = toxic air contaminants; GHG = greenhouse gas emissions; MT/yr = metric tons per year; CO_2e = carbon dioxide equivalent; NO_2 = nitrogen dioxide; ppm = parts per million; µg/m³ = micrograms per cubic meter

Impact Analysis

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

Less than Significant Impact. In accordance with SMAQMD's CEQA Guide, construction-generated NO_X, PM_{10}, and $PM_{2.5}$, and operation-generated ROG and NO_X (all ozone precursors) are used to determine consistency with the Regional Ozone Plan. The CEQA Guide states (SMAQMD 2020b):

> *By exceeding the District's mass emission thresholds for operational emissions of ROG, NO_X, PM_{10}, or $PM_{2.5}$, the project would be considered to conflict with or obstruct implementation of the District's air quality planning efforts.*

As shown in the discussion for question b) below, the project's construction-generated emissions of NO_X, PM_{10}, and $PM_{2.5}$ would not exceed SMAQMD thresholds. The project would not conflict with or obstruct implementation of the applicable air quality plan, and the impact would be less than significant.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard?

Less than Significant Impact. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in the nonattainment of ambient air quality standards. Instead, the potential for a project's individual emissions to contribute to existing cumulatively significant adverse air quality impacts is evaluated.

Construction Emissions

CalEEMod version 2022.1 was used to quantify project construction-period emissions, as discussed in *Methodology and Assumptions*. The model output sheets are included in Attachment B of the Air Quality and Greenhouse Gas Emissions Analysis (HELIX 2025a). Construction of the proposed project is anticipated to begin in August 2026 and take approximately 90 working days to complete. The quantity, duration, and intensity of construction activity influence the amount of construction emissions and related pollutant concentrations that occur at any one time. As such, the emission forecasts provided herein reflect a specific set of conservative assumptions based on the expected construction scenario wherein a relatively large amount of construction activity is occurring in a relatively intensive manner. Because of this conservative assumption, actual emissions could be less than those forecasted. If construction is delayed or occurs over a longer time period, emissions could be reduced because of: (1) a more modern and cleaner-burning construction equipment fleet mix than assumed in CalEEMod; and/or (2) a less intensive buildout schedule (i.e., fewer daily emissions occurring over a longer time interval).

The project's construction emissions were estimated using CalEEMod, as described above. The emissions generated from construction activities include:

- Dust (including PM_{10} and $PM_{2.5}$), primarily from fugitive sources such as soil disturbance and vehicle travel over paved and unpaved surfaces; and,

- Combustion emissions of air pollutants (including ROG, NO_X, PM_{10}, $PM_{2.5}$, CO, and sulfur oxides [SO_X]), primarily from the operation of heavy off-road equipment and haul trucks.

The project's construction period emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ are compared to the SMAQMD construction thresholds in Table 6, *Daily Construction Criteria Pollutant and Precursor Emissions*. The SMAQMD does not have a recommended threshold for construction-generated ROG. However, quantification and disclosure of ROG emissions is recommended.

TABLE 6: DAILY CONSTRUCTION CRITERIA POLLUTANT AND PRECURSOR EMISSIONS

Construction Activities	Pollutant Emissions (pounds per day)			
	ROG	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Site Preparation	0.7	5.9	0.3	0.2
Demolition	0.8	6.3	0.4	0.3
Grading	0.3	2.4	0.2	0.2
Aboveground Infrastructure	0.5	4.8	0.2	0.2
Underground Utilities	0.1	0.8	<0.1	<0.1
Maximum Daily Emissions	0.8	6.3	0.4	0.3
SMAQMD Thresholds	*None*	*85*	*80*	*82*
Exceed Thresholds?	*No*	*No*	*No*	*No*

Source: HELIX 2025a

ROG = reactive organic gases; NO_X = nitrogen oxides; PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; SMAQMD= Sacramento Metropolitan Air Quality Management District

As shown in Table 6, project construction emissions of criteria pollutants and precursors would not exceed the SMAQMD construction thresholds. Regardless of emission levels, SMAQMD considers construction period PM_{10} and $PM_{2.5}$ emissions to be significant unless a set of Basic Construction Emissions Control Practices (BCECP) is implemented, considered by the SMAQMD to be feasible for controlling fugitive dust from a construction site (SMAQMD 2019). Implementation of the BCECPs allows the use of the non-zero particulate matter significance thresholds. The modeling accounts for emissions reductions resulting from watering exposed surfaces twice daily. The project would be conditioned to implement all of the SMAQMD BCECPs to control fugitive dust (SMAQMD 2019):

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.
- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).
- All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
- Minimize idling time by either shutting equipment off when not in use or reducing time of idling to five minutes. Provide clear signage that posts this requirement for workers at the entrances to the site; and,

- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated.

With implementation of SMAQMD BCECPs, project short-term construction emissions of criteria pollutants and precursors would not exceed the SMAQMD's maximum daily emissions thresholds.

Operational Emissions

Operation of the proposed project would involve the continued maintenance of the dam infrastructure and the Willow Hill Reservoir. Staff that currently maintain the dam and Willow Hill Reservoir, typically two City staff at a given time, would perform the maintenance tasks required for the proposed project and no new employees would be required for the proposed project. As changes in project operational emissions would be negligible compared to operational emissions from the existing dam and Willow Hill Reservoir.

Impact Summary

The project would implement all of the SMAQMD BCECPs to control fugitive dust and the project's maximum daily construction emissions would not exceed the SMAQMD's thresholds. Additionally, operation of the proposed project would involve the continued maintenance of the dam infrastructure and the Willow Hill Reservoir. As changes in project operational emissions would be negligible compared to operational emissions from the existing dam and Willow Hill Reservoir. Therefore, construction and operation of the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment. The impact would be less than significant.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact. CARB and OEHHA have identified the following groups of individuals as the most likely to be affected by air pollution (sensitive receptors): adults over 65, children under 14, infants (including in utero in the third trimester of pregnancy), and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis (CARB 2005; OEHHA 2015). Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved and are referred to as sensitive receptor locations. Examples of these sensitive receptor locations are residences, schools, hospitals, and daycare centers.

The closest existing sensitive receptor locations to the project site are multi-family residences located approximately 15 feet to the east. The Folsom High School stadium is located approximately 25 feet west of the project site; however, the closest Folsom High School classroom from the project site would be approximately 215 feet west of the project site.

TAC Emissions

The dose (of TAC) to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance in the environment and the extent of exposure a person has with the substance; a longer exposure period to a fixed quantity of emissions would result in higher health risks. Current models and methodologies for conducting cancer health risk assessments are associated with longer-term exposure periods (typically 30 years for individual residents based on guidance from OEHHA) and are best suited for evaluation of long duration TAC emissions with

predictable schedules and locations. These assessment models and methodologies do not correlate well with the temporary and highly variable nature of construction activities. Cancer potency factors are based on animal lifetime studies or worker studies where there is long-term exposure to the carcinogenic agent. There is considerable uncertainty in trying to evaluate the cancer risk from projects that will only last a small fraction of a lifetime (OEHHA 2015).

Implementation of the project would result in the use of heavy-duty construction equipment, haul trucks, on-site generators, and construction worker vehicles. These vehicles and equipment could generate the TAC DPM. Generation of DPM from construction projects typically occurs in a localized area (e.g., at the project site) for a short period of time. Because construction activities and subsequent emissions vary depending on the phase of construction (e.g., grading, building construction), the construction-related emissions to which nearby receptors are exposed to would also vary throughout the construction period. During some equipment-intensive phases, such as grading, construction-related emissions would be higher than other less equipment-intensive phases such as building construction. Concentrations of mobile-source DPM emissions are typically reduced by 70 percent at approximately 500 feet (CARB 2005).

Considering this information, the short duration (approximately 90 workdays) of construction activity, the highly dispersive nature of DPM, and the fact that construction activities would occur at various locations throughout the project site, construction of the project would not expose off-site sensitive receptors to substantial DPM concentrations. Once operational, the project would result in negligible TAC emissions, including emissions of DPM.

Localized Criteria Pollutants

As discussed in question (1), above, the project would implement the SMAQMD's BCECPs to control fugitive dust during construction. Localized concentration of CO from exhaust emissions, or "CO hotspots," would only be a concern on high-volume roadways where vertical and/or horizontal mixing is substantially limited, such as tunnels or below grade highways. There are no high-volume roadways in the region with limited mixing that would be affected by project construction traffic. Once operational, the project would result in negligible operational emissions of criteria pollutant and precursors

Impact Summary

Construction and operation of the project would not expose sensitive receptors to substantial concentrations of TACs, including DPM, or substantial localized concentrations of criteria pollutants, including from CO hotspots. The impact would be less than significant.

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

Less than Significant Impact. Odors associated with diesel exhaust would be emitted during project construction. The odor of these emissions is objectionable to some; however, emissions would disperse rapidly from the project site and therefore should not be at a level that would affect a substantial number of people. Further, construction activities would be temporary. As a result, impacts associated with temporary odors during construction are not considered significant.

Per the SMAQMD CEQA Guide, typical land uses which could generate significant odor impacts include wastewater treatment plants, sanitary landfills, composting/green waste facilities, recycling facilities,

petroleum refineries, chemical manufacturing plants, painting/coating operations, rendering plants, and food packaging plants (SMAQMD 2016). The project would replace, rehabilitate, and improve the existing dam infrastructure at the Willow Hill Reservoir and would not include any of these land uses. Therefore, the project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people, and the impact would be less than significant.

IV. BIOLOGICAL RESOURCES

		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:					
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☒	☐	☐
c)	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
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, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

This section is based on the Biological Resources Assessment prepared by HELIX in January 2025 for the proposed project (HELIX 2025b).

Environmental Setting

The approximately 18.3-acre project site is within the Willow Hill Reservoir Community Park and consists of the Willow Hill Reservoir, areas of open space, a potential construction staging area, and four potential construction access routes. The area surrounding the project site is largely developed and consists of the Folsom High School campus, residential development, and U.S. 50.

The project site is in the Lower American watershed (USGS Hydrologic Unit Code [HUC] 18020111). The reservoir is fed by an inlet valve that pulls raw water from Folsom Lake and is managed by the City of Folsom. A rip rap-lined spillway is present along the levee that drains to the Rebel Hill Ditch, a historic mining canal. The Rebel Hill Ditch flows southwest just outside the southern boundary of the project site

and terminates at Prairie City Road. Drainage within the project site would be expected to flow into the Willow Hill Reservoir. The site has no apparent source of natural hydrology other than direct precipitation. The terrain in the project site is varied; the lowest portion of the project site is below the dam near the replacement valve with an elevation of approximately 297 feet amsl. The top of the dam is approximately 330 feet amsl and the area remains fairly flat surrounding the reservoir.

Regulatory Setting

Federal Regulations

Federal Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) enforces the provisions stipulated within the Federal Endangered Species Act of 1973 (FESA; 16 United States Code [USC] 1531 et seq.). Species identified as federally threatened or endangered (50 Code of Federal Regulations [CFR] 17.11, and 17.12) are protected from take, defined as direct or indirect harm, unless a Section 10 permit is granted to an entity other than a federal agency or a Biological Opinion with incidental take provisions is rendered to a federal lead agency via a Section 7 consultation. Pursuant to the requirements of FESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally listed species may be present in the project site and determine whether the proposed project will jeopardize the continued existence of or result in the destruction or adverse modification of critical habitat of such species (16 USC 1536 (a)[3], [4]). Other federal agencies designate species of concern (species that have the potential to become listed), which are evaluated during environmental review under the National Environmental Policy Act (NEPA) or CEQA although they are not otherwise protected under FESA.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 established federal responsibilities for the protection of nearly all species of birds, their eggs, and nests. The Migratory Bird Treaty Reform Act of 2004 further defined species protected under the act and excluded all non-native species. Section 16 USC 703–712 of the Act states “unless and except as permitted by regulations, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill” a migratory bird. A migratory bird is any species or family of birds that live, reproduce or migrate within or across international borders at some point during their annual life cycle. Currently, there are 836 migratory birds protected nationwide by the Migratory Bird Treaty Act, of which 58 are legal to hunt. The U.S. Court of Appeals for the 9th Circuit (with jurisdiction over California) has ruled that the MBTA does not prohibit incidental take (952 F 2d 297 – Court of Appeals, 9th Circuit 1991).

State Regulations

California Endangered Species Act

The California Endangered Species Act (CESA) (California Fish and Game Code Sections 2050 to 2097) is similar to the FESA. The California Fish and Wildlife Commission is responsible for maintaining lists of threatened and endangered species under CESA. CESA prohibits the take of listed and candidate (petitioned to be listed) species. “Take” under California law means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch capture, or kill (California Fish and Game Code, Section 86). The CDFW can authorize take of a state-listed species under Section 2081 of the California Fish and Game

Code if the take is incidental to an otherwise lawful activity, the impacts are minimized and fully mitigated, funding is ensured to implement and monitor mitigation measures, and CDFW determines that issuance would not jeopardize the continued existence of the species. A CESA permit must be obtained if a project will result in the "take" of listed species, either during construction or over the life of the project. For species listed under both FESA and CESA requiring a Biological Opinion under Section 7 of the FESA, CDFW may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the Fish and Game Code.

California Code of Regulations Title 14 and California Fish and Game Code

The official listing of endangered and threatened animals and plants is contained in the California Code of Regulations Title 14 §670.5. A state candidate species is one that the California Fish and Game Code has formally noticed as being under review by CDFW to include in the state list pursuant to Sections 2074.2 and 2075.5 of the California Fish and Game Code.

Legal protection is also provided for wildlife species in California that are identified as "fully protected animals." These species are protected under Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species at any time. CDFW is unable to authorize incidental take of fully protected species unless any such take authorization is issued in conjunction with the approval of a Natural Community Conservation Plan that covers the fully protected species (California Fish and Game Code Section 2835).

California Environmental Quality Act

Under the CEQA (PRC Section 21000 et seq.), lead agencies analyze whether projects would have a substantial adverse effect on a candidate, sensitive, or special-status species (PRC Section 21001[c]). These "special-status" species generally include those listed under FESA and CESA, and species that are not currently protected by statute or regulation, but would be considered rare, threatened, or endangered under the criteria included CEQA Guidelines Section 15380. Therefore, species that are considered rare are addressed under CEQA regardless of whether they are afforded protection through any other statute or regulation. The California Native Plant Society (CNPS) inventories the native flora of California and ranks species according to rarity; plants ranked as 1A, 1B, 2A, 2B, and 3 are generally considered special-status species under CEQA.

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines Section 15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare if it can be shown to meet certain specified criteria. These criteria have been modeled after the definition in FESA and the section of the California Fish and Game Code dealing with rare or endangered plants and animals. Section 15380(d) allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the USFWS or CDFW (i.e., candidate species) would occur.

Native Plant Protection Act

The California Native Plant Protection Act of 1977 (California Fish and Game Code Sections 1900-1913) empowers the Fish and Game Commission to list native plant species, subspecies, or varieties as endangered or rare following a public hearing. To the extent that the location of such plants is known, CDFW must notify property owners that a listed plant is known to occur on their property. Where a

property owner has been so notified by CDFW, the owner must notify CDFW at least 10 days in advance of any change in land use (other than changing from one agricultural use to another), in order that CDFW may salvage listed plants that would otherwise be destroyed. Currently, 64 taxa of native plants have been listed as rare under the act.

Nesting Birds

California Fish and Game Code Subsections 3503 and 3800 prohibit the possession, take, or needless destruction of birds, their nests, and eggs, and the salvage of dead nongame birds. California Fish and Game Code Subsection 3503.5 protects all birds in the orders of Falconiformes and Strigiformes (birds of prey). Fish and Game Code Subsection 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act. The Attorney General of California has released an opinion that the Fish and Game Code prohibits incidental take.

Jurisdictional Waters

Federal Jurisdiction

Unless considered an exempt activity under Section 404(f) of the Federal Clean Water Act, any person, firm, or agency planning to alter or work in "waters of the U.S.," including the discharge of dredged or fill material, must first obtain authorization from the USACE under Section 404 of the Clean Water Act (CWA; 33 USC 1344). Permits, licenses, variances, or similar authorization may also be required by other federal, state, and local statutes. Section 10 of the Rivers and Harbors Act prohibits the obstruction or alteration of navigable waters of the U.S. without a permit from USACE (33 USC 403). Activities exempted under Section 404(f) are not exempted within navigable waters under Section 10.

"Waters of the U.S." are defined as: "All waters that are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide; all interstate waters including interstate wetlands; all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds, the use, degradation, or destruction of which could affect interstate commerce; impoundments of these waters; tributaries of these waters; the territorial sea; or wetlands adjacent to these waters (33 CFR Part 328)."

Within non-tidal waters that meet the definition cited above and, in the absence of adjacent wetlands, the indicator used by the USACE to determine the lateral extent of its jurisdiction is the ordinary high water mark (OHWM) – the line on the shore established by fluctuations of water and indicated by a clear, natural line impressed on the bank, shelving, changes in soil character, destruction of terrestrial vegetation, and/or the presence of litter and debris.

Wetlands are defined under the CFR Part 328.3 as those areas that are inundated or saturated by surface or ground water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

The USACE has determined that not all features which meet the wetland definition are, in fact, considered to be waters of the U.S. Normally, features not considered as waters of the U.S. include (a) non-tidal drainage and irrigation ditches excavated on dry land; (b) artificially irrigated areas which

would revert to upland if the irrigation ceased; (c) artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing, (d) artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons, and (e) waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States (see 33 CFR 328.3[a]). Other features may be excluded based on Supreme Court decisions (e.g., *SWANCC* and *Rapanos*) or by regulation.

Federal and state regulations pertaining to waters of the U.S., including wetlands, are discussed below.

Federal Jurisdiction

Clean Water Act (33 USC 1251-1376)

The CWA provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters.

Section 401 requires that an applicant for a federal license or permit that allows activities resulting in a discharge to waters of the U.S. must obtain a state certification that the discharge complies with other provisions of CWA. The Regional Water Quality Control Board (RWQCB) administers the certification program in California and may require State Water Quality Certification before other permits are issued.

Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the U.S.

Section 404 establishes a permit program administered by USACE that regulates the discharge of dredged or fill material into waters of the U.S. (including wetlands). Implementing regulations by USACE are found at 33 CFR Parts 320-332. The Section 404 (b)(1) Guidelines were developed by the USEPA in conjunction with USACE (40 CFR Part 230), allowing the discharge of dredged or fill material for non-water dependent uses into special aquatic sites only if there is no practicable alternative that would have less adverse impacts.

State Jurisdiction

Regional Water Quality Control Board

Any action requiring a CWA Section 404 permit, or a Rivers and Harbors Act Section 10 permit, must also obtain a CWA Section 401 Water Quality Certification. The State of California Water Quality Certification (WQC) Program was formally initiated by the State Water Resources Control Board (SWRCB) in 1990 under the requirements stipulated by Section 401 of the Federal CWA. Although the Clean Water Act is a Federal law, Section 401 of the CWA recognizes that states have the primary authority and responsibility for setting water quality standards. In California, under Section 401, the State and Regional Water Boards are the authorities that certify that issuance of a federal license or permit does not violate California's water quality standards (i.e., that they do not violate Porter-Cologne and the Water Code). The WQC Program currently issues the WQC for discharges requiring USACE's permits for fill and dredge discharges within Waters of the United States, and now also implements the State's wetland protection and hydromodification regulation program under the Porter Cologne Water Quality Control Act.

On April 2, 2019, the SWRCB adopted a State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures), for inclusion in the forthcoming Water Quality Control Plan for Inland Surface Waters and Enclosed Bays and Estuaries and Ocean Waters of California. The Procedures consist of four major elements: 1) a wetland definition; 2) a framework for determining if a feature that meets the wetland definition is a water of the state; 3) wetland delineation procedures; and 4) procedures for the submittal, review and approval of applications for Water Quality Certifications and Waste Discharge Requirements for dredge or fill activities. The Office of Administrative Law approved the Procedures on August 28, 2019, and the Procedures became effective May 28, 2020.

Under the Procedures and the State Water Code (Water Code §13050[e]), "Waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." Unless excluded by the Procedures, any activity that could result in discharge of dredged or fill material to Waters of the State, which includes Waters of the U.S. and non-federal Waters of the State, requires filing of an application under the Procedures.

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act, Water Code Section 13000 et seq.) is California's statutory authority for the protection of water quality in conjunction with the federal CWA. The Porter-Cologne Act requires the SWRCB and RWQCBs under the CWA to adopt and periodically update water quality control plans, or basin plans. Basin plans are plans in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California. The Porter-Cologne Act also requires dischargers of pollutants or dredged or fill material to notify the RWQCBs of such activities by filing Reports of Waste Discharge and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements, National Pollution Discharge Elimination System (NPDES) permits, Section 401 water quality certifications, or other approvals.

California Department of Fish and Wildlife

The CDFW is a trustee agency that has jurisdiction under Section 1600 et seq. of the California Fish and Game Code. Under Sections 1602 and 1603, a private party must notify CDFW if a proposed project will "substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of streambeds…except when the department has been notified pursuant to Section 1601." Additionally, CDFW asserts jurisdiction over native riparian habitat adjacent to aquatic features, including native trees over four inches in diameter at breast height (DBH). If an existing fish or wildlife resource may be substantially adversely affected by the activity, CDFW may propose reasonable measures that will allow protection of those resources. If these measures are agreeable to the parties involved, they may enter into an agreement with CDFW identifying the approved activities and associated mitigation measures. Generally, CDFW recommends submitting an application for a Streambed Alteration Agreement (SAA) for any work done within the lateral limit of water flow or the edge of riparian vegetation, whichever is greater.

Local Regulations

City of Folsom Tree Preservation Ordinance

Chapter 12.16 of the Folsom Municipal Code, the Tree Preservation Ordinance, regulates the cutting or modification of trees, including oaks and specified other trees; requires a Tree Permit prior to cutting or modification; and establishes mitigation requirements for cut or damaged trees. The Tree Preservation

Ordinance establishes policies, regulations, and standards necessary to ensure that the City will continue to preserve and maintain its "urban forests." Anyone who wishes to perform "Regulated Activities" on "Protected Trees" must apply for a permit with the City. Regulated activities include:

- Removal of a Protected Tree;
- Pruning/trimming of a Protected Tree; and/or,
- Grading or trenching within the Protected zone.

Protected trees include:

- Native oak trees with a diameter at standard height (DSH; 4.5 feet above ground level) of six inches or larger for single trunk trees or 20 inches or larger combined diameter of native oak multi-trunk trees. Native oak species include:
    - valley oak (*Quercus lobata)*
    - blue oak (*Quercus douglasii*)
    - interior live oak (*Quercus wislizenii*)
    - coast live oak (*Quercus agrifolia*)
- Heritage oak trees – native oaks with a trunk DSH of 19 inches or greater and native oaks with a multi-trunk diameter of 38 inches or greater;
- Landmark trees identified individually by the City Council through resolution as being a significant community benefit; and/or,
- Street trees within the tree maintenance strip.

Methods

Information used in preparation of this Initial Study comes from the following sources:

- Desktop review of regionally occurring special-status species and habitats with potential to occur in the project site and/or be affected by the proposed project;

- Biological field survey performed by HELIX biologists on December 3, 2024;

For the purposes of this report, special-status species are those that fall into one or more of the following categories, including those:

- listed as endangered or threatened under the Federal Endangered Species Act (FESA; including candidates and species proposed for listing);

- listed as endangered or threatened under the California Endangered Species Act (CESA; including candidates and species proposed for listing);

- designated as rare, protected, or fully protected pursuant to California Fish and Game Code;

- designated a Species of Special Concern (SSC) by the California Department of Fish and Wildlife (CDFW);

- considered by CDFW to be a Watch List species with potential to become an SSC;

- defined as rare or endangered under Section 15380 of the California Environmental Quality Act (CEQA); or,

- Having a California Rare Plant Rank (CRPR) of 1A, 1B, 2A, 2B, or 3.

In order to evaluate special-status species and/or their habitats with the potential to occur on the project site and/or be impacted by the proposed project, HELIX obtained lists of special-status species known to occur and/or having the potential to occur in the project site and vicinity from the U.S. Fish and Wildlife Service (USFWS; 2024a), the California Native Plant Society (CNPS; 2024), and the California Natural Diversity Database (CNDDB) (CDFW 2024).

Vegetation Communities

Two upland vegetation communities occur within the project site and include blue oak-foothill pine woodland (1.47 acres) and ruderal/disturbed (5.88 acres). Two aquatic communities also occur within the project site and include a reservoir (6.15 acres) and perennial marsh (4.84 acres). A comprehensive list of all plant and wildlife species observed within the project site is provided in Attachment D and representative site photographs are included in Attachment E of the Biological Resources Assessment (HELIX 2025b).

Blue Oak-Foothill Pine Woodland

This habitat is generally diverse in structure with a mix of hardwoods, conifers, and shrubs. Blue oak and foothill pine (*Pinus sabiniana*) typically comprise the overstory of this habitat, with blue oak usually most abundant. In the foothills of the Sierra Nevada, tree species typically associated with this habitat are interior live oak and California buckeye (*Aesculus californica*). Interior live oak occasionally dominates the overstory, especially in rocky areas and on north-facing slopes at higher elevations. At lower elevations, where blue oaks make up most of the canopy, the understory tends to be primarily annual grasses and forbs. At higher elevations where foothill pines and interior live oaks sometimes dominate the canopy, the understory usually includes patches of shrubs in addition to the annual grasses and forbs.

Approximately 1.47 acres of blue oak-foothill pine habitat occur within the project site. Blue oak-foothill pine habitat occurs in the southern portion of the project site and along a small strip of the eastern side of the reservoir. This habitat is fragmented and is likely a remnant of the natural habitat that once dominated the project site prior to development. The understory of this habitat is disturbed as evidenced by abundant mine tailings. Dominant plant species observed within this habitat type during the field survey include blue oak, foothill pine, oracle oak (*Quercus × morehus*), Himalayan blackberry (*Rubus armeniacus*), coyote brush (*Baccharis pilularis*), medusahead (*Elymus caput-medusae*), and ripgut brome (*Bromus diandrus*). The canopy of some oak trees within this habitat overlap with proposed access routes.

Ruderal/Disturbed

Ruderal habitats are characterized by an assemblage of non-native and invasive plant species that readily colonize disturbed landscapes. Roadsides, construction sites, and vacant lots are all sites in which ruderal plant species typically occur. Disturbed habitats typically retain a soil substrate, but the vegetation communities are either lacking or are comprised of mostly ruderal plant species.

Approximately 5.88 acres of ruderal/disturbed habitat occur within the project site. This habitat occurs along the perimeter of the project site surrounding the reservoir and includes two existing dirt roads/trails that are proposed to be utilized as construction access routes. Modified areas around the reservoir that support the dam, spillway, floating dock, trails, playground, and exercise stations are included in this habitat.

The majority of this habitat is void of vegetation. Dominant plant species that were observed in the understory this habitat within the project site include medusahead, common ripgut grass, stinkwort (*Dittrichia graveolens*), yellow star-thistle (*Centaurea solstitialis*), wild oat (*Avena fatua*), and rose clover (*Trifolium hirtum*). Some trees including callery pear (*Pyrus calleryana*) and oracle oak are present in this habitat and are noted along the dirt roads/trails with no understory.

Special-Status Species with Potential to Occur

Listed and Special-Status Plant Species

According to the database query, 23 listed and/or special-status plants have the potential to occur on-site or in the vicinity of the project site (CDFW 2024; CNPS 2024). Based on field observations, published information, and literature review, four special-status plants have the potential to occur within the project site: spicate calycadenia (*Calycadenia spicata*), Boggs Lake hedge-hyssop (*Gratiola heterosepala*), wooly rose-mallow (*Hibiscus lasiocarpos* var. *occidentalis*), and Sanford's arrowhead (*Sagittaria sanfordii*). The remaining regional special-status plants identified in the query occur on serpentine or gabbro soils, within vernal pools, or within other habitats which do not occur in the project site. Special-status plants with potential to occur in the project site are discussed below.

Spicate Calycadenia

Spicate calycadenia is an annual herb that is endemic to California. This plant produces a hairy, glandular stem 20 to 60 centimeters (eight to 24 inches) tall, with linear shaped leaves that grow up to five centimeters (two inches) long. The inflorescence has one or more flower heads at separate nodes, surrounded by short bracts tipped with resin glands. The glandular and hairy flower heads have a center of several disc florets as well as whitish, triple-lobed ray florets, and an achene fruit (Calscape 2024). This species is found in valley and foothill grasslands as cismontane woodland habitats. It occurs on dry adobe or clay soils that are gravelly or rocky; often in disturbed areas, openings, and roadsides from 40 to 1,400 meters elevation. This species blooms from May to September (CNPS 2024).

This species was not observed in the project site during the field survey on December 3, 2024, which is outside of the identification window for this species. There are three documented occurrences within five miles of the project site, with the closest approximately 1.8 miles away. This occurrence documents a historical observation of this species near the intersection of Folsom Boulevard and U.S. 50 in 1955. A more recent documented occurrence is from 2020, and is just south of White Rock Road, approximately 2.4 miles from the project site (CDFW 2024).

Boggs Lake Hedge-Hyssop

Boggs Lake hedge-hyssop is an annual herb that is native to California and is also found in Oregon. This plant is small with reddish-green stems and is only a few centimeters tall. It has thin stems and small leaves that are dotted with hairlike glands. The top of the stem is occupied by an inflorescence

producing centimeter long tubular flowers which are yellow with white tips (Calscape 2024). This species is found on clay soils in vernal pools and on the margins of marshes, swamps, and lakes from four to 2,410 meters elevation, and blooms from April to August (CNPS 2024).

This species was not observed in the project site during the field survey on December 3, 2024, which is outside of the identification window for this species. There is one documented occurrence within five miles of the project site, approximately 1.6 miles away. This occurrence is from 1989 and documents this species in ponds near the intersection of Prairie City Road and White Rock Road (CDFW 2024).

Wooly Rose-Mallow

Wooly rose-mallow is a perennial, rhizomatous emergent herb that is native to California. This plant can grow up the five feet high and produces large white blossoms that are three to four inches wide and have a bright crimson center. The leaves are toothed and alternate with stems growing four to six inches long (Lady Bird Johnson Wildflower Center 2024). This species grows in freshwater marshes and swamps from zero to 155 meters elevation, often in rip rap along levees, and blooms from June to September (CNPS 2024).

This species was not observed in the project site during the field survey on December 3, 2024, which is outside of the identification window for this species. There are no documented occurrences within five miles of the project site. The closest documented occurrence is approximately 20 miles away near Sacramento (CDFW 2024).

Sanford's Arrowhead

Sanford’s arrowhead is a perennial, rhizomatous emergent herb that is endemic to California. This aquatic plant can grow up to four feet tall, although it is usually less, and grows from a spherical tuber. The leaves are often submerged, variable in shape, and are long and strap-shaped or narrowly lanceolate. The leaves may grow up to nine inches long from the underwater stem. Sanford’s arrowhead is monoecious, with individuals bearing both male and female flowers. The inflorescence is a raceme made up of several whorls of white flowers, with the lowest node bearing female flowers and upper nodes bearing male flowers. This species is found in freshwater marshes, swamps, ponds, and slow-moving drainages from zero to 605 meters elevation. It blooms from May to October (CNPS 2024).

This species was not observed in the project site during the field survey on December 3, 2024, which is outside of the identification window for this species. There are two documented occurrences within five miles of the project site, with the closest approximately 2.7 miles away. This occurrence is from 2018 and documents 800 to 1,000 plants growing in a drainage near Mississippi Bar (CDFW 2024).

Listed and Special-Status Wildlife Species

According to the database query, 30 listed and/or special-status wildlife species have the potential to occur on-site or in the vicinity of the project site (CDFW 2024; USFWS 2024a). Based on field observations, published information, and literature review, 17 special-status wildlife species have the potential to occur within the project site: Crotch’s bumblebee (*Bombus crotchii*), monarch butterfly (*Danaus plexippus*), northwestern pond turtle (*Actinemys marmorata*), Cooper’s hawk (*Accipiter cooperii*), tricolored blackbird (*Agelaius tricolor*), golden eagle (*Aquila chrysaetos*), burrowing owl (*Athene cunicularia*), ferruginous hawk (*Buteo regalis*), Swainson’s hawk (*Buteo swainsoni*), white-tailed kite (*Elanus leucurus*), merlin (*Falco columbarius*), bald eagle (*Haliaeetus leucocephalus*), California black

rail (*Laterallus jamaicensis coturniculus*), double-crested cormorant (*Nannopterum auritum*), osprey (*Pandion haliaetus*), purple martin (*Progne subis*), and pallid bat (*Antrozous pallidus*).

However, the following species only have a low potential to pass through or soar over the project site during migration or other movements and are not expected to occur or use the project site in any substantial way: Crotch's bumblebee, monarch butterfly, golden eagle, ferruginous hawk, Swainson's hawk, merlin, bald eagle, double-crested cormorant, and osprey. The rationale for this finding for each species is included in Attachment C of the Biological Resources Assessment (HELIX 2025b). Because these species are only expected to temporarily pass through the project site, no avoidance and minimization measures are recommended for these species, and they are not discussed further in this IS/MND.

The remaining eight special-status species with potential to occur in the project site are discussed in more detail below. In addition to these special-status wildlife species, other migratory birds and raptors protected under federal, State, and local laws/policies also have the potential to occur within the project site.

Northwestern Pond Turtle

This species occurs in a variety of aquatic habitats; typically, permanent ponds, lakes, streams, irrigation ditches, canals, marshes, or pools in intermittent drainages. It appears to prefer areas lined with abundant vegetation and either rocky or muddy substrates. Basking sites such as logs, rocks, cattail mats or exposed banks are required for this species. The active season is from February to November, and breeding occurs from April to May. Overwintering occurs in upland terrestrial habitats close to water sources (approximately 300 feet), in which they will bury themselves under loose soil (CDFW 2024). Nesting sites in uplands may be as far as 400 meters (1,312 feet) or more from the aquatic habitat, although the distance is usually much less and is generally around 100 meters (328 feet) (Yolo Habitat Conservation Plan/Natural Community Conservation Plan [HCP/NCCP] 2018). In nonriverine habitats that experience little water level fluctuation, this species may overwinter underwater (Thomson *et al.* 2016).

This species was not observed in the project site during the field survey on December 3, 2024. There are six documented occurrences within five miles of the project site, with the closest approximately 2.2 miles away. This occurrence is from 1993 and documents one adult observed in a pond near Mississippi Bar (CDFW 2024).

Cooper's Hawk

This species occurs in open woodlands, riparian forests, montane coniferous forests, and other open woodland habitats. It may also occur in wooded suburban habitats. This species nests high within large trees and preys on medium-sized birds and small mammals (Zeiner *et al.* 1990).

This species was not observed in the project site during the field survey on December 3, 2024. There are two documented occurrences within five miles of the project site, with the closest approximately 2.2 miles away. This occurrence is from 1990, and documents three juveniles observed near Mississippi Bar (CDFW 2024). Cooper's hawk is not regularly tracked by the CNDDB but is a common species in Sacramento County and the vicinity of the project site (eBird 2024).

Tricolored Black Bird

This species nests and seeks cover in emergent wetland vegetation and thorny vegetation such as Himalayan blackberry, cattails, and tules. The nesting area must be large enough to support a minimum colony of 50 pairs as they are a highly colonial species. Typical nesting areas are in large wetlands, marshes, and large brambles of thorny vegetation in and near suitable foraging habitat. This species forages on the ground in croplands, grassy fields, flooded land, and edges of ponds for insects (Shuford and Gardali 2008).

This species was not observed in the project site during the field survey on December 3, 2024. There are 13 documented occurrences within five miles of the project site, with the closest approximately 1.5 miles away. This occurrence is from 1994 and documents a nesting colony observed near Folsom Lake College. This occurrence is now possibly extirpated due to development. Another nearby occurrence is approximately 2.7 miles from the project site; it is from 2016 and documents a nesting colony near Serpa Way (CDFW 2024).

Burrowing Owl

This species occurs in a variety of open habitats; typically grasslands, desert scrub, agricultural fields, washes, and disturbed areas such as golf courses or vacant lots. Burrowing owls forage on the ground in areas with low, sparse vegetation and with an abundance of small mammal burrows. They nest in burrows, especially those of California ground squirrel (*Otospermophilus beecheyi*), but will also use other refuge sites such as rubble piles, pipes, and culverts. In the Central Valley of California, most foraging occurs within a 600-meter radius of the nest (Gervais *et al*. 2003).

Some portions of the ruderal/disturbed habitat may provide suitable habitat for this species but no burrows or other suitable nesting/refuge sites were observed in the project site. In addition, soils within the project site are very hard and compacted which likely limits the potential this species could burrow onsite. Therefore, this species has a low potential to occur.

White-Tailed Kite

White-tailed kite is a year-round resident in California in coastal areas and lowlands in the Central Valley. Population sizes increase during the non-breeding season due to over-wintering migrants. It occurs in a variety of habitats including grasslands, savannah, oak woodland, riparian woodland, open suburban areas, and agriculture fields. Nest trees typically have a dense canopy or are within a dense group of trees, such as riparian forest or oak woodland. Foraging occurs within un-grazed or lightly-grazed fields, agricultural areas, and open grasslands (CDFW 2024).

This species was not observed in the project site during the field survey on December 3, 2024. There are six documented occurrences within five miles of the project site, with the closest approximately 2.4 miles away. This occurrence is from 1991 and documents a nest near California Circle (CDFW 2024). White-tailed kite is not regularly tracked by the CNDDB but is a common species in Sacramento County and the vicinity of the project site (eBird 2024).

California Black Rail

The largest concentrations of this species are found in the tidal salt marshes of the northern San Francisco Bay region, primarily in San Pablo and Suisun Bays. Smaller populations also occur in San

Francisco Bay, the Outer Coast of Marin County, freshwater marshes in the foothills of the Sierra Nevada, and in the Colorado River Area (Spautz et. al. 2005). This species inhabits brackish marsh habitats, primarily in the upper marsh zone dominated by alkali heath (*Frankenia salina*), cattail (*Typha* spp.), and rush (*Juncus* spp.); and prefers lower salinity environments. In the Sierra Nevada foothills, this species is a year-round resident along wetland edges where water is generally 1.2 inches or less and is typically found in wetlands 0.25 acre or larger. This species is typically associated with perennial wetlands associated with flowing water such as irrigation canals, perennial streams, and springs with dense vegetation in the Sierra Nevada foothills. It forages on the ground, under cover of dense vegetation (Richmond *et al.* 2010).

This species was not observed in the project site during the field survey on December 3, 2024. There are no documented occurrences within five miles of the project site. The closest documented occurrence is approximately 5.4 miles from the project site and documents a breeding pair with chicks observed in 2017 (CDFW 2024).

Purple Martin

The purple martin occurs as an uncommon summer resident and migrant, primarily from mid-March to late September, and breeds from May to mid-August. Martins are most abundant in mesic regions, near large wetlands and other water bodies, and at upper slopes and ridges, which likely concentrate aerial insects (Shuford and Gardali 2008). This species nests in cavities in open areas with low canopy cover at the height of the nest, near large bodies of water that support high densities of large insects. Martins use a variety of cavities including bridges, large tree snags, and collapsed lava tubes. This species is very sensitive to competition from European starlings (*Sturnus vulgaris*) and is extirpated from most low-elevation areas by starlings (Shuford and Gardali 2008).

The project site provides suitable foraging habitat for this species and some tree cavities that could support nesting were observed within and adjacent to the project site. However, this species is uncommon and is very sensitive to European starlings which were observed in the project site. Because European starlings are known to occur in the project site and there are no documented occurrences in the vicinity of the project site, purple martin has a low potential to occur.

Pallid Bat

Pallid bat occurs throughout California except for the high Sierra Nevada and the northern Coast Ranges. Habitats include grasslands, shrublands, woodlands, and forests from sea level to 6,000 feet. This species is most common in open, dry habitats with rocky areas for roosting; roosts also include cliffs, abandoned buildings, bird boxes, hollow trees and under bridges. This species is primarily a crevice dweller, but recent studies have shown that they are also dependent upon tree roosts. Particularly, in northern California, pallid bat is more dependent upon oak woodland and oak savannah in lower elevations and may be found in coniferous forest, including redwoods at mid to higher elevations. This species is also intolerant of roost disturbance and it has a high loyalty to roosting sites. If this species experiences frequent disturbance at a roost site, it will abandon the roost (Bolster ed. 1998).

This species was not observed in the project site during the field survey on December 3, 2024. There is one historical documented occurrence of this species within five miles of the project site from 1941 that documents one female bat. A more recent occurrence is approximately 30 miles from the project site near the City of Davis (CDFW 2024).

Other Nesting Migratory Birds and Raptors

Migratory birds are protected under the MBTA of 1918 (16 USC 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed under 50 CFR 10; this also includes feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Additionally, Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (i.e., hawks, owls, eagles, and falcons), including their nests or eggs; Section 3513 specifically states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

A number of migratory birds and raptors have the potential to nest in or adjacent to the project site. Suitable nest locations within and adjacent to the project site include trees, shrubs, grass, artificial structures, and bare ground.

Sensitive Habitats

Sensitive habitats include those that are of special concern to resource agencies or those that are protected under CEQA, Section 1600 of the California Fish and Game Code (i.e., riparian areas) and/or Sections 401 and 404 of the CWA, which include wetlands and other waters of the U.S. Additionally, sensitive habitats, including native trees and oak woodland habitat, are protected under the specific policies outlined in the City of Folsom Tree Preservation Ordinance. Sensitive habitats identified within the project site are discussed below.

Aquatic Habitats

Aquatic habitats that occur in the project site include a reservoir (6.15 acres) and perennial marsh (4.84 acres). These habitat types are discussed below.

Reservoir

One reservoir is present in the project site with characteristics of a pond. Ponds are typically small, permanent water bodies that are formed either naturally or artificially. They are characterized by open water and often contain perennial herbaceous and perennial woody plant species along the edges. They can be an isolated feature within upland habitat or connected to other aquatic resources through groundwater or seasonal flows.

The Willow Hill Reservoir was created in the early twentieth century to aid in dredging initiated by the Natomas Company. Some sources claim that the reservoir was made from the largest, retired hydraulic mining pit in the area, most likely primarily associated with ground sluicing. The eastern border of the reservoir is surrounded by visible ditches and ditch remnants, and cobble stacks are sometimes visible beneath the water surface. Ground sluicing was a popular form of mining in this area in the 1890s, after hydraulic mining and before dredging, and the reservoir could have been utilized mostly for the two former techniques. Roads constructed by the Natomas Company over mine tailings appear on a 1954 USGS topographic map immediately east of the reservoir and on a 1967 USGS topographic map starting

at the reservoir and traversing northward. This suggests that the reservoir was an active part of the mining landscape of the area just past the mid-twentieth century.

Approximately 6.15 acres of reservoir was mapped in the project site. This feature was approximately 85 percent inundated at the time of the field visit and is surrounded by emergent wetland vegetation. Dominant vegetation observed within the reservoir during the field visit includes California bulrush (*Schoenoplectus californicus*), narrowleaf cattail (*Typha angustifolia*), American milfoil (*Myriophyllum spicatum*), Brazilian waterweed (*Egeria densa*), and smaller duckweed (*Lemna minor*). Several waterfowl species were observed foraging and roosting on the reservoir during the field visit including mallards (*Anas platyrhynchos*), Canada geese (*Branta canadensis*), American coots (*Fulica americana*), common gallinules (*Gallinula chloropus*), and one mute swan (*Cygnus olor*).

Perennial Marsh

Perennial marsh habitat surrounds the majority of the Willow Hill Reservoir and is absent in areas of the reservoir with steep banks, along the dam, and in the area with the floating dock. Perennial marshes typically remain inundated or saturated throughout the year and are often associated with streams/creeks, rivers, lakes, ponds, or bays. The persistence of inundation/saturation throughout the year permits the growth of warm-season wetland grasses, perennial herbaceous plant species, and perennial woody plant species such as shrubs and trees.

Approximately 4.84 acres of perennial marsh was mapped in the project site. The perennial marsh occupies a large swath along the northern and eastern portions of the reservoir and extends to the edge of blue oak-foothill pine and ruderal/disturbed habitats. Some areas of the perennial marsh occur on mine tailings and some upland species are present on the tops of the tailings creating small, upland islands within this habitat. The perennial marsh in the project site is dominated by dense narrowleaf cattail and bulrush along with other species such as common rush (*Juncus effusus*), curly dock (*Rumex crispus*), common smartweed (*Persicaria hydropiper*), and Bermuda grass (*Cynodon dactylon*). Some woody species including Fremont cottonwood (*Populus fremontii*) and arroyo willow (*Salix lasiolepis*) are present along margins of this habitat.

Protected Trees

No trees are planned to be removed as part of the proposed project. However, if oak trees, street trees, and/or landmark trees (protected trees) are anticipated to be removed or trimmed, a tree permit would be required prior to tree removal. Impacts to protected trees are considered as removal of more than 10 percent of the canopy, cutting limbs that are two inches in diameter and greater, or complete removal. Installation of mechanical support systems (e.g., cabling, bracing, bolting, guying and/or propping) within a protected tree also requires a tree work permit. Other regulated activities requiring a tree permit include construction and site improvements such as grading, trenching, and other development-related actions that have the potential to impact a protected tree and/or damage roots and soil structure within the critical root zone. If protected trees exist on a site where work will disturb the natural topography, even if the activity is not directly under the tree, a permit is likely to be required. Removal of protected trees also requires a permit. If approved, the tree removal permit will likely have replacement planting and/or mitigation in-lieu fees conditioned as part of the permit approval.

Wildlife Migration Corridors

Wildlife corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. This fragmentation of habitat can also occur when a portion of one or more habitats is converted into another habitat; for instance, when woodland or scrub habitat is altered or converted into grasslands after a disturbance such as fire, mudslide, or construction activities. Wildlife corridors mitigate the effects of this fragmentation by: (1) allowing animals to move between remaining habitats thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk of catastrophic events (such as fire or disease) on population or local species extinction; and, (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs.

Impact Analysis

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less than Significant with Mitigation. No special status plant or wildlife species were observed in the project site during the field survey on December 3, 2024. However, the project site may provide suitable habitat for special status plant and wildlife species as well as nesting migratory birds and raptors. In addition, sensitive aquatic habitats and protected oaks trees are present in the project site.

Special-Status Plants

The project site provides suitable habitat for spicate calycadenia within the blue oak-foothill pine woodland habitat, suitable habitat for Boggs Lake hedge-hyssop within the perennial marsh and along the margin of Willow Hill Reservoir, suitable habitat for woolly rose-mallow within the perennial marsh, and suitable habitat for Sanford's arrowhead within the perennial marsh and the Willow Hill Reservoir. Temporary dewatering of the reservoir during project construction may temporarily impact the perennial marsh in areas that are normally saturated/inundated. However, dewatering of the reservoir would be temporary and short-term and is not expected to permanently affect the hydrology of vegetation communities that could support special-status plants. Implementation of Mitigation Measure BIO-1 would reduce construction-related impacts on special status plant species to a less than significant level.

Special-Status Wildlife

Reptiles

Suitable habitat for northwestern pond turtle is present within the Willow Hill Reservoir and perennial marsh habitats within the project site. Impacts to this species could occur if present in aquatic habitat during temporary dewatering, installation of the temporary coffer dam, vegetation removal, and construction activities required in the in-water portions of the reservoir near the dam. Additionally, construction of the proposed project could impact this species if present in upland habitats during improvements to the downstream isolation valve or during construction equipment/vehicle use on

access roads or in the staging area. Implementation of Mitigation Measure BIO-2 would reduce potentially significant impacts on northwestern pond turtle to a less than significant level.

Birds and Nesting Migratory Birds and Raptors

Special-status birds and migratory birds and raptors protected under federal, State, and/or local laws and policies have potential to nest and forage within the project site including Cooper's hawk, tricolored blackbird, burrowing owl, white-tailed kite, California black rail, and purple martin. Although no active nests were observed during the field survey, the project site and adjacent land contain suitable habitat to support a variety of nesting birds within trees, shrubs, structures, and on bare ground. Active nests and nesting birds are protected by the California Fish and Game Code Sections 3503 and 3503.5, 3513 and the MBTA. Ground-disturbing and other development activities including dewatering, vegetation clearing, tree removal/trim, and construction could impact nesting birds if these activities occur during the nesting season (generally February 1 to August 31). To avoid impacts to nesting birds, all ground disturbing activity should be completed between September 1 and January 31, if feasible. If construction cannot occur outside of the nesting season, implementation of Mitigation Measure BIO-3 would reduce potentially significant impacts to special-status birds, nesting migratory birds, and raptors to a less than significant level.

Mammals

Pallid bat has potential to roost within trees in the project site. Although no trees are proposed for removal as part of the proposed project, impacts on bat roosts and maternity roosts may still occur if in proximity to construction activities. Construction activities near active roost sites may result in roost abandonment. If roost abandonment occurs during daylight hours when bats are vulnerable, bats would be subject to a higher degree of predation risk. Loss of bats and maternity colonies would be a violation of the Fish and Game Code and a significant impact. Implementation of Mitigation Measure BIO-4 would reduce potentially significant impacts on pallid bat to a less than significant level.

Conclusion

With implementation of Mitigation Measures BIO-1 through BIO-4, listed below, potentially significant impacts on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service would be reduced to a less than significant level.

Mitigation Measure BIO-1: Avoid Impacts to Special-Status Plant Species

A qualified botanist retained by the project Contractor shall conduct a special-status plant survey within the appropriate identification (blooming) period prior to the initiation of any ground-disturbing or dewatering activities. A survey conducted between June - August will satisfy the blooming period for all potentially occurring special-status plant species. Multiple survey rounds may be needed to adequately survey the area and capture blooming times depending on seasonal weather conditions. If no special-status plants are observed, then a letter report documenting the survey results shall be prepared and provided to the City, and no further measures are recommended.

- If special-status plants are observed within the project site, the location of the special-status plants shall be marked with pin flags or other highly visible markers and may also be marked by a sub-meter accurate GPS. The City shall determine if the special-status plant(s) onsite can be

avoided by project design or utilize construction techniques to avoid impacts to the special-status plant species. All special-status plants to be avoided shall have exclusion fencing or other highly visible material marking the avoidance area (if necessary) and the avoidance area shall remain in place throughout the entire construction period. If special-status plants are observed in portions of the project site that are not located near the project footprint, exclusion fencing may not be needed. A qualified botanist should determine if exclusion fencing will be needed based on the location of the plant(s) and the most current project design.

If special-status plants are found within the project site and cannot be avoided, the City shall consult with the California Department of Fish and Wildlife (CDFW) as appropriate and depending on the status of the plant species in question, determine appropriate measures to mitigate for the loss of special-status plant populations. These measures may include gathering seed from impacted populations for planting within nearby appropriate habitat, preserving or enhancing existing offsite populations of the plant species affected by the project, or restoring suitable habitat for special-status plant species habitat as directed by the regulatory agencies.

Mitigation Measure BIO-2: Avoid Impacts to Northwestern Pond Turtle

A qualified biologist retained by the project Contractor shall conduct a pre-construction survey for northwestern pond turtle within seven days prior to the start of dewatering or ground-disturbing activities in suitable habitat. The area of work near the downstream isolation valve shall be inspected for wintering or nesting turtles depending on the time of year. If construction does not commence within seven days of the survey, or halts for more than seven days, then an additional survey is required prior to starting or resuming work.

- The qualified biologist shall be onsite during dewatering and coffer dam installation to avoid potential impacts to this species during construction. The biologist would not be needed onsite once all dewatering has occurred and the coffer dam is securely in place. If northwestern pond turtle is observed within the project area during work, specifically within the construction zone, all work shall immediately halt in the vicinity of the animal, and the animal will be allowed to leave the area of its own will. If the animal is in immediate danger, a qualified biologist will relocate the animal outside of the construction zone, at a safe distance from all construction-related activities, and within suitable habitat. No one other than a qualified biologist shall handle, take, or otherwise harass the animal. No work shall resume until the animal has moved or been removed from areas of potential disturbance.

A qualified biologist retained by the project Contractor shall conduct an environmental awareness training for all project-related personnel before the initiation of work. The training shall include the identification of northwestern pond turtle, required practices before the start of construction, general measures that are being implemented to protect the species as they relate to the project, penalties for non-compliance, and boundaries of the permitted disturbance zones. Upon completion, all construction personnel shall sign a form stating they have attended the training and understand all the measures. Directors, Managers, Superintendents, and the crew foremen and forewomen will be responsible for ensuring that crewmembers comply with the measures and guidelines. Proof of this instruction shall be kept on file with the biologist on-site and the project Contractor.

Mitigation Measure BIO-3: Pre-Construction Nesting Bird Survey

If construction activities occur during the nesting season (February 1 through August 31), a qualified biologist retained by the project Contractor shall conduct a nesting bird survey to determine the presence of any active nests within the project site. Additionally, the surrounding 500 feet of the project site shall be surveyed for active raptor nests, where accessible. The nesting bird survey should be conducted within seven days prior to commencement of ground-disturbing or other construction activities. If the nesting bird survey shows that there is no evidence of active nests, then a letter report shall be prepared to document the survey and be provided to the City and no additional surveys are recommended. If development does not commence within seven days of the nesting bird survey, or halts for more than seven days, then an additional survey is required prior to starting or resuming work within the nesting season.

- If active nests are found, then the qualified biologist shall establish a species-specific buffer to prohibit development activities near the nest to avoid and minimize nest disturbance until the young have successfully fledged or the biologist determines that the nest is no longer active. Buffer distances may range from 30 feet for some songbirds up to 500 feet for California black rail and some raptors. The project Contractor shall ensure that the buffer is implemented by all construction personnel and that no construction activities occur within the buffer. Nest monitoring may also be warranted during certain phases of construction to ensure nesting birds are not adversely impacted. The need for nest monitoring shall be determined by the qualified biologist based upon the species nesting and the location of the nest in relation to the project disturbance area, proposed levels of project disturbance, and existing disturbance levels. If active nests are found within any trees slated for removal/trimming, then an appropriate buffer shall be established around the tree and all trees within the buffer shall not be removed/trimmed until a qualified biologist determines that the nest has successfully fledged and/or is no longer active. Nest avoidance buffer distances may need to be expanded if the biologist determines that the initial avoidance buffer is still resulting in avoidance behavior from the adults.

- If tricolored blackbird, burrowing owl, or California black rail are found to be nesting in the project site or within 500 feet, agency consultation or additional measures may be needed prior to construction.

A qualified biologist shall conduct environmental awareness training. The training may be combined with other environmental awareness trainings.

If construction occurs outside of the nesting bird season (September 1 to January 31) a nesting bird survey and environmental training for nesting birds would not be required.

Mitigation Measure BIO-4: Pre-Construction Roosting Bat Survey

A qualified biologist retained by the project Contractor shall conduct a pre-construction survey within seven days of the commencement of ground-disturbing or other construction activities. This survey may be combined with the nesting bird survey if nesting bird surveys are required. If no bats are observed, a letter report shall be prepared to document the survey and provided to the City, and no additional measures are recommended. If construction does not commence within seven days of the pre-

construction survey, or halts for more than seven days, an additional survey is recommended before starting work.

- If bats are present and roosting on or within 100 feet of the project footprint, then the qualified biologist shall establish an appropriate buffer around the roost site. The project Contractor shall ensure that the buffer is implemented by all construction personnel and that no construction activities occur within the buffer. At minimum, no trees shall be removed within the project site (if applicable) until the biologist has determined that the bat is no longer roosting in the tree or structure. Additional mitigation measures for bat species, such as the installation of bat boxes or alternate roost structures, would be required only if special-status bat species are found to be roosting within the project site.

A qualified biologist shall conduct environmental awareness training. The training shall include the identification of special-status bat species, required practices before the start of construction, general measures that are being implemented to protect the species as they relate to the project, penalties for non-compliance, and boundaries of the permitted disturbance zones. Upon completion, all construction personnel shall sign a form stating they have attended the training and understand all the measures. Directors, Managers, Superintendents, and the crew foremen and forewomen will be responsible for ensuring that crewmembers comply with the measures and guidelines. Proof of this instruction shall be kept on file with the biologist on-site and the project Contractor. This training may be combined with other environmental awareness trainings.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

Less than Significant with Mitigation. Sensitive habitats include those that are of special concern to resource agencies or those that are protected under CEQA, Section 1600 of the California Fish and Game Code (i.e., riparian areas) and/or Sections 401 and 404 of the CWA, which include wetlands and other waters of the U.S.

Approximately 6.15 acres of reservoir and 4.84 acres of perennial marsh habitat were mapped within the project site. The reservoir is fed by Folsom Lake and ultimately drains to the American River, and therefore has potential to be considered a water of the U.S. The proposed project would require the installation of a temporary coffer dam within the OHWM of the Willow Hill Reservoir and would require partial dewatering of the reservoir prior to installation. Although dewatering of the reservoir would be temporary and short-term, dewatering would result in reduced water levels in the perennial marsh and outer perimeter of the reservoir and would pose temporary impacts to emergent wetland vegetation that is dependent on reservoir hydrology. Additionally, soils would temporarily desiccate in dewatered areas and further contribute to the temporary loss of emergent wetland vegetation. With implementation of Mitigation Measure BIO-5, potentially significant impacts to aquatic resources during project construction would be reduced to a less than significant level.

Following construction of the proposed dam infrastructure improvements, the temporary coffer dam would be removed, and the northern inlet would be turned on to allow the reservoir to return to pre-construction conditions. Operation of the proposed project would involve exercising the upstream slide gate valve approximately twice per year. Occasional maintenance activities would involve periodic testing of the valve as well as general maintenance to the valve operator infrastructure as needed.

Operation of the proposed project would not result in a substantial adverse effect on aquatic resources, and the impact would be less than significant.

Mitigation Measure BIO-5: Avoid Impacts to Aquatic Resources

Before the initiation of any construction activities that could result in impacts to potentially regulated aquatic features, including ground-disturbing activities and dewatering, the extent of the Ordinary High-Water Mark (OHWM) of aquatic features within the project site shall be mapped, and applicable permits shall be prepared and submitted to the appropriate regulatory agencies for any project-related impacts to these features. Any conditions included in the final permits, including prescribed mitigation measures, would be required to be implemented before filling or impacting these features.

- Section 404 authorization from the U.S. Army Corps of Engineers (USACE) and a Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB) may be required before the start of construction that will impact any waters of the U.S. Any waters of the U.S. or jurisdictional wetlands that would be lost or disturbed should be replaced or rehabilitated on a "no-net-loss" basis in accordance with the USACE mitigation guidelines and the City of Folsom requirements. Habitat restoration, rehabilitation, and/or replacement should be at a location and by methods agreeable to the agencies.

- If a 404 permit is required for the proposed project, then water quality concerns during construction would be addressed in the Section 401 water quality certification from the Regional Water Quality Control Board. A Stormwater Pollution Prevention Plan (SWPPP) would also be required during construction activities. SWPPPs are required in the issuance of a National Pollutant Discharge Elimination System (NPDES) construction discharge permit by the U.S. Environmental Protection Agency. Implementation of Best Management Practices (BMPs) during construction is standard in most SWPPPs and water quality certifications. Examples of BMPs include stockpiling of debris away from regulated wetlands and waterways; immediate removal of debris piles from the site during the rainy season; use of silt fencing and construction fencing around regulated waterways; and use of drip pans under work vehicles and containment of fuel waste throughout the site during construction.

If the aquatic features are determined to not be subject to federal jurisdiction, then these features may still be subject to waste discharge requirements under the Porter-Cologne Water Quality Control Act. Section 13260(a) of the Porter-Cologne Water Quality Control Act (contained in the California Water Code) requires any person discharging waste or proposing to discharge waste, other than to a community sewer system, within any region that could affect the quality of the waters of the State (all surface and subsurface waters) to file a report of waste discharge. The discharge of dredge or fill material into the ditches may constitute a discharge of waste that could affect the quality of waters of the State. A report of waste discharge will be filed for impacts to non-federal waters, if required.

The reservoir and marsh areas may also be regulated by the California Department of Fish and Wildlife (CDFW) under Section 1600 of the California Fish and Game Code. CDFW asserts jurisdiction over native riparian habitat adjacent to aquatic features, including native trees over four inches in diameter at breast height (DBH). If an existing fish or wildlife resource may be substantially adversely affected by the activity, CDFW may propose reasonable measures that will allow the protection of those resources. If these measures are agreeable to the parties involved, they may enter into an agreement with CDFW identifying the approved activities and associated mitigation measures. Generally, CDFW recommends

submitting an application for a Lake and Streambed Alteration Agreement (LSAA) for any work done within the lateral limit of water flow or the edge of riparian vegetation, whichever is greater.

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

Less than Significant with Mitigation. As discussed above in question b), approximately 6.15 acres of reservoir and 4.84 acres of perennial marsh habitat were mapped within the project site. The Willow Hill Reservoir is fed by Folsom Lake and ultimately drains to the American River, and therefore has potential to be considered a water of the U.S. The proposed project would require the installation of a temporary coffer dam within the OHWM of the Willow Hill Reservoir and would require partial dewatering of the reservoir prior to installation. Although dewatering of the reservoir would be temporary and short-term, dewatering would result in reduced water levels in the perennial marsh and outer perimeter of the reservoir and would pose temporary impacts to emergent wetland vegetation that is dependent on reservoir hydrology. Additionally, soils would temporarily desiccate in dewatered areas and further contribute to the temporary loss of emergent wetland vegetation. With implementation of Mitigation Measure BIO-5, potentially significant impacts to State or federally protected wetlands during project construction would be reduced to a less than significant level.

Following construction of the proposed dam infrastructure improvements, the temporary coffer dam would be removed, and the northern inlet would be turned on to allow the reservoir to return to pre-construction conditions. Operation of the proposed project would involve exercising the upstream slide gate valve approximately twice per year. Occasional maintenance activities would involve periodic testing of the valve as well as general maintenance to the valve operator infrastructure as needed. Operation of the proposed project would not result in a substantial adverse effect on State or federally protected wetlands, and the impact would be less than significant.

See question C) for Mitigation Measure BIO-5.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact. The project site is located in an area surrounded by development and roads. Although some wildlife may travel through the project site on a local level, the project site is not considered a wildlife migration corridor. Therefore, the proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. No impact would occur, and no mitigation would be necessary.

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

Less than Significant Impact. No trees are currently proposed for removal as part of the proposed project. However, if it is determined that tree removal would be required, the project would be required to comply with Section 12.16, Tree Preservation Ordinance, of the Folsom Municipal Code, which requires the appropriate tree removal permit be obtained and all measures and tree mitigation requirements included in the permit be followed. Therefore, in the event that removal of a protected

tree is required for the proposed project, compliance with Section 12.16, Tree Preservation Ordinance, of the Folsom Municipal Code the proposed project would reduce the impact to less than significant. No mitigation would be necessary.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. No Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan has been approved for the City of Folsom. Therefore, no impacts to an existing adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan would occur. There would be no impact, and no mitigation would be necessary.

V. CULTURAL RESOURCES

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

A Cultural Resources Assessment was prepared by HELIX in March 2025 for the proposed project (HELIX 2025c). The findings of the CRA are summarized below.

Environmental Setting

State and federal legislation requires the protection of historical and cultural resources. In 1971, President's Executive Order No. 11593 required that all federal agencies initiate procedures to preserve and maintain cultural resources by nomination and inclusion on the National Register of Historic Places. In 1980, the Governor's Executive Order No. B-64-80 required that state agencies inventory all "significant historic and cultural sites, structures, and objects under their jurisdiction which are over 50 years of age and which may qualify for listing on the National Register of Historic Places (NRHP)." Section 15064.5(b)(1) of the CEQA Guidelines specifies that projects that cause "…physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historic resource would be materially impaired" shall be found to have a significant impact on the environment.

For the purposes of CEQA, a historical resource is a resource listed in, or determined eligible for listing in the California Register of Historical Resources (CRHR). When a project could impact a resource, it must be determined whether the resource is an historical resource, which is defined as a resource that:

a) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

b) Is associated with the lives of persons important in our past.

c) Embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.

d) Has yielded, or may be likely to yield, information important in history or prehistory.

The City of Folsom Standard Construction Specifications were developed and approved by the City of Folsom in 2004 and were most recently updated in 2020. They include Article 11 - Cultural Resources,

which provides direction on actions to be taken in the event that materials are discovered that may ultimately be identified as a historical or archaeological resource, or human remains (City 2020b).

Methods

HELIX requested a records search at the North Central Information Center (NCIC), located at California State University Sacramento, and a search of the Sacred Lands File (SLF) maintained by the Native American Heritage Commission (NAHC); conducted tribal informational outreach; and conducted a pedestrian survey of the Area of Potential Effects (APE). Each of these tasks is described below.

Records Search

HELIX requested a records search for the project site and a 0.5-mile radius at the NCIC on November 18, 2024. The objective of the records search was to identify prior cultural resource investigations and documented cultural resources within the project site. Additional desktop research included a review of previous study reports, cultural resource records, historic-era aerial imagery, and the Built Environment Resource Directory of the Office of Historic Preservation.

HELIX requested a search of the SLF on November 18, 2024, to identify recorded locations of Native American sacred sites, human remains, or other areas of traditional or religious value within the project site. The request letter is provided in Attachment C of the Cultural Resources Assessment (HELIX 2025c).

Pedestrian Survey

HELIX Senior Archaeologist Benjamin Siegel M.A., RPA, surveyed all accessible portions of the APE on December 3, 2024. As the Willow Hill Reservoir was inundated at the time of survey, observations for this portion of the APE were taken from the sides of the reservoir. The survey used transects spaced 15 meters apart to conduct a systematic investigation of the project site. During the survey, the ground surface of the project site, coterminous with the project's "Area of Potential Effects" (APE), was examined for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, fire-affected rock, prehistoric ceramics), soil discoloration that might indicate the presence of a prehistoric cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations, wells) or historic debris (e.g., metal, glass, ceramics).

Results

This section describes the results of the background research, Native American outreach, and pedestrian survey.

Records Search

Previous Studies

The NCIC Records Search revealed that 44 cultural studies have been conducted within the 0.5-mile search radius, nine of which at least partially overlap the project site. The cultural studies which overlap the project site are summarized below.

Report 000238 – Entitled, *An Archaeological Survey and Record Search of the Folsom Executive Estates near Folsom, California,* Report 000238 was prepared by Daryl G. Noble of the Archaeological Study Center in 1978. Report 000238 details the methods and results of a cultural resources study conducted in support of the conversion of approximately 500 acres of land from agricultural use to residential and commercial use near Folsom, California. The project area for Report 000238 is bounded by U.S. 50 to the south, Prairie City Road to the west, the Southern Pacific Railroad to the north, and private property and the Willow Hill Reservoir to the east effectively encompassing the entirety of the current APE. Report 000238 utilized a records search at the regional office of the California Archaeological Site Survey in the Department of Anthropology at California State University, Sacramento, as well as the NRHP, and a pedestrian survey of the southernmost 50 acres.

No cultural resources were identified by Report 000238 which also lie within the current APE.

Report 003770 – Entitled, *Prairie City Center Project Report,* Report 003770 was prepared by Susan Lindstrom, Consulting Archaeologist, in 1993. Report 003770 is closely related to Report 003823 (described below) which together detail the methods and results of a cultural resources study conducted in advance of the construction of residential development on 500 acres near Folsom, California. Report 003770 is focused on the investigation of the northern 404 acres of the 500-acre project area addressed by both reports. The area considered for Report 003770 lies to the north of U.S. 50 and east of Prairie City Road and lies north of the current APE. It is presumed that the NCIC identified this report as overlapping with the current project area due to Report 003770's relationship with Report 003823 which does have a project area that partially overlaps with the current APE. The efforts associated with Report 003770 consisted of a preliminary field tour of the report's study area, a records search at the NCIC, and an aerial photograph analysis, and an intensive pedestrian survey. A subsequent field investigation was implemented to further record and evaluate potential newly identified cultural resources.

No cultural resources were identified by Report 003770 which also lie within the current APE.

Report 003823 – Entitled, *A Cultural Resource Inventory of Prairie Oaks Center Project,* Report 003823 was prepared by Susan Lindstrom, Consulting Archaeologist in 1993. Report 003823 is closely related to Report 003770 and was prepared in advance of residential and high school development on 500 acres near Folsom, California. Report 003823 details the investigation of the southern 90 acres of the project area. The project area for report 003823 lies to the north of U.S. 50 and east of Prairie City Road, with a boundary that curves westward to border, but not encompass, the Willow Hill Reservoir. As a result, the study area for report 003823 overlaps with the southwestern and southeastern arms of the current APE as well as the areas adjacent west of the boundaries of the Willow Hill Reservoir itself. All research conducted for Report 003770 was used for Report 003823. These efforts were further supplemented by an updated records search at the NCIC and a pedestrian survey of the southern 90 acres of the report's project area.

Lindstrom identified one feature, Feature 18, within the current APE. Feature 18 was identified as part of the Willow Springs Hill mining site (P-34-002237), the Prairie Diggings Placer Mining District (P-34-002306), and the Folsom Mining District (P-34-000335). Feature 18 is described as a large, steep-sided main drain for the ground sluice for the mining works now inundated by Willow Hill Reservoir, which runs from northeast to southwest, to the south of the Willow Hill Reservoir.

Report 003942 – Entitled, *Evaluation of Cultural Resources Willow Springs Development Folsom, Sacramento County, California,* Report 003942 was prepared by Ric Windmiller, Consulting Archaeologist, in 1997. Report 0033942 details the methods and results of a cultural resources study conducted in support of residential and commercial development by Forecast Homes on 266 acres on the north side of U.S. 50 and east of Prairie City Road in the city of Folsom, California. Report 003942's investigation included a records search at the NCIC, native American outreach, and a vehicular and pedestrian survey of the report's project area.

The Natomas Ditch is the only resource identified within Report 003942 that lies within the current APE, just north of the Willow Hill Reservoir. Within Report 003942, Windmiller noted that Lindstrom (1988, 1993) determined that the southern segment of the Ditch, including the portion which lies within the current APE, is not eligible for listing in the NRHP.

Report 004521 – Entitled, *Historic Property Survey Report for a Proposed Interchange and Auxiliary Lanes on Highway 50 in Eastern Sacramento,* Report 004521 was prepared by Daryl G. Noble, of the California Department of Transportation (Caltrans) District 3 in 1994. Report 004521 details the methods and results of a cultural resources study conducted in support of a Caltrans project to reconfigure the interchange at Prairie City Road and U.S. 50 south of Folsom, California. The study area for Report 004521 runs for approximately three miles along U.S. 50 from east of the Folsom Boulevard undercrossing to 0.84 mile east of the Prairie City Road overcrossing. Based on records provided by the NCIC it is unclear why this report was identified by the NCIC as overlapping with the current APE, as Report 004521's study area seems to lie entirely along the route of U.S. 50 and its right-of-way which lies well to the south of the current APE. Report 004521 involved a records search with the NCIC and the NRHP, and a field survey.

Report 004521 identified eight features associated with the Willow Springs Hill Diggings/Willow Springs Hill mining site (P-34-002237) in its study area. However, the details provided regarding the relationship between the study area of report 004521 and the current APE make it unclear which, if any, of these features lie within the current APE. Regardless, as per a letter on file at the NCIC in association with Report 006575 dated July 21, 2006 from the California State Historic Preservation Officer (SHPO) to Will Ness, Chief of the Sacramento Office of the US Army Corps of Engineers Sacramento District, all of the features associated with the Willow Springs Hill Diggings/Willow Springs Hill mining site (P-34-002237) identified by Report 004521, which lie in the vicinity of the current APE, have been determined not eligible for listing in the NRHP, meaning that even if the features identified by Report 004521 do lie within the APE, they have been determined to be ineligible for listing in the NRHP.

Report 006575 – Entitled, *The Oaks at Willow Springs Folsom, Sacramento County, California,* Report 006575 was prepared by Ric Windmiller, Consulting Archaeologist, in 2005. Report 006575 details the methods and results of a cultural resources study conducted in advance of a proposed Oaks at Willow Springs Hill mixed use residential and commercial development project consisting of 40 acres on the east side of Prairie City Road, between Iron Point Road on the north and U.S. 50 on the south. As a result, the study area for Report 006575 encompasses almost the entirety of the current APE, save for the southwestern most extent of the current project's southwestern arm. Report 006575 consisted of a records search at the NCIC, Native American outreach, and a pedestrian survey of the Willow Springs Hill project's proposed APE.

As a result of these efforts, 24 features associated with the Willow Springs site (P-34-002237), the Prairie Diggings Placer Mining District (P-34-002306), and/or the Folsom Minning District (P-34-000335) were

identified. Of these resources, Windmiller recommended only three features as either eligible or potentially eligible for listing in the NRHP/CRHR. As per a letter on file at the NCIC in association with Report 006575 dated July 21, 2006 from the California SHPO to Will Ness, Chief of the Sacramento Office of the USACE Sacramento District, the SHPO concurred with Windmiller's recommendation that the other 21 resources found within the Willow Spring Hill project's proposed APE are not eligible for listing in the NRHP/CRHR. As a result, the only three resources Report 006575 identified within the vicinity of the current project which possess or potentially possess NRHP/CRHR eligibility include: the Willow Hill Reservoir feature, which is the largest of the Willow Springs Hill mining pits that was converted for use as a reservoir in 1902 by the Natomas Company, "Lindstrom's Feature 18" of the Willow Springs site and the Prairie Diggings Placer Mining District, which consists of a portion of a large ground sluice drain immediately adjacent to the south side of Willow Hill Reservoir and, "Lindstrom's Feature 34" of the Willow Springs site and the Prairie Diggings Placer Mining District, consisting of a "dug out" or small habitation feature located near the U.S. 50-Prairie City Road interchange. Of these three features, only the Willow Hill Reservoir and Lindstrom's Feature 18 lie within the current APE. These two resources are discussed in further detail within the previously recorded resources section of the current report.

Report 007924 – Entitled, *Archaeological Evaluation of a Portion of the Natomas Ditch and Replacement Pipeline Route, Near Folsom, Sacramento County, California,* Report 006575 was prepared by Jensen & Associates, in 1989. Report 007924 details the methods and results of a cultural resources study conducted in advance of the abandonment and subsequent replacement of three segments (approximately 2.8 miles) of the Natomas Ditch (P-34-000461) within Folsom, California. As a result, Report 007924's study area overlapped with the portion of the current APE where the Natomas Ditch meets with the Willow Hill Reservoir. Report 007924 included a records search with the NCIC and a pedestrian survey.

The Natomas Ditch is the only resource identified within Report 007924 that lies within the current APE, with a small portion of the ditch connecting to the north side of the Willow Hill Reservoir. Within Report 003942, Archaeologist Ric Windmiller noted that Lindstrom (1988) determined that the southern segment of the Natomas Ditch which connects with the Willow Hill Reservoir is not eligible for listing in the NRHP.

Report 007926 – Entitled, *An Archaeological Reconnaissance Survey of a Five Hundred Acre Parcel within the City of Folsom, Sacramento County, California,* Report 007926 was prepared by Jeanette A. McKenna and Keven J. Peter of Hatheway and McKenna, in 1987. Report 007926 details the methods and results of a cultural resources study conducted in advance of development of the Santa Fe Center in the southeastern portion of the City of Folsom, California. Report 007926's project area occupies 500 acres north of U.S. 50 and east of Prairie City Road and is bounded by the Southern Pacific Railroad to the north. The study area for Report 007926 encompasses almost the entirety of the current APE, save for the eastern half of the Willow Hill Reservoir and the area where the reservoir connects to the Natomas Ditch. The cultural resources investigation for Report 007926 included a records search at the NCIC and literature review at the Folsom Public Library, Folsom Historical Society and Museum, Folsom Telegraph Newspaper, the Chamber of Commerce, and included an examination of City of Folsom Environmental Impact Statements. Efforts associated with Report 007926 also included a reconnaissance survey of the report's project area.

The survey conducted for Report 007926 did not reveal any cultural resources in the areas that coincide with the current APE.

Report 012349 – Entitled, The Evolution of California's Placer Mining Landscape: A View from Prairie City, Report 023459 was prepared by Judy D. Tardoff of Caltrans, in 2004. Report 012349 describes the methods and results of a cultural resources study conducted for the purpose of detailing placer mining activity near Folsom, California in advance of Caltrans projects on U.S. 50. The report's study area effectively encompasses the entirety of the current APE. The effort to record cultural resources in the area had begun in the early 1990s with plans to reconfigure the interchange at the U.S. 50 and Prairie City Road junction. Report 012349 reports that Caltrans' investigations of cultural resources in the area included the study of historical information and the use of pedestrian survey and monitoring during construction projects. This study referred to two mining areas, the Alder Creek Diggings (separated into 26 loci) and the Prairie Diggings (separated into 35 loci).

The Prairie Diggings area is described as beginning approximately 0.16 mile west of the U.S. 50-Prairie City Road interchange and extending east for approximately 1.16 miles. The Prairie Diggings are mostly north of U.S. 50 but there are some areas that extend south of U.S. 50, fully encompassing the current APE. Loci identified within Report 012349 that are located inside the current APE include features indicative of ground sluicing (loci 4, 5, 7b). Locus 4 is depicted on Figure 37 of Report 012349 as just west of Willow Hill Reservoir and described as "sparse hand workings." No further description for Locus 4 is provided within report 012349, however from other records on file at the NCIC it has been made clear that Locus 4 is understood to have been effectively destroyed through the construction of Folsom High School to the adjacent west of the Willow Hill Reservoir in August 1998.

The only resources described within Report 012349 which lie within the current APE consists of what the report calls Locus 5 of the Prairie Diggings (which is the Willow Hill Reservoir itself), and Locus 7b of the Prairie Diggins, which is depicted in Figure 37 of Report 012349, and is referred to in other reports as Lindstrom's Feature 18, a ground sluice drain immediately adjacent to the south side of the Willow Hill Reservoir (Lindstrom 1993; Windmiller 2005).

Previously Recorded Resources

The NCIC records search revealed that 46 cultural resources have been previously documented within 0.5 mile of the current APE. NCIC records indicate that four of these resources lie within the current APE, which are summarized below.

Resource P-34-000335 – Known as the Folsom Mining District, this resource is an extensive historic-era mining district that encompasses the entirety of the current APE and much of the vicinity of Folsom. This mining district represents a significant industrial landscape associated with the mid-nineteenth to early twentieth century gold mining operations in the area. Characterized by extensive hydraulic mining features, tailing deposits, water conveyance systems, and associated worker habitation sites, the district reflects the technological advancements and environmental modifications brought to the area as a result of gold extraction activities.

According to records on file with the NCIC various elements of this district have been recorded and re-examined by archaeologists 43 times since a portion of it was initially recorded in 1969. Records on file with the NCIC also indicate that the Folsom Mining District is now understood to incorporate all but one of the resources reported by the NCIC as lying within the current APE as elements of the district, including Willow Hill Springs (P-34-002237) and the Prairie Diggings Mining District (P-34-002306). While the NCIC records search reported that the proposed Project Area lies within the Folsom Mining District, closer inspection of records on file with the NCIC make it clear that the only previously recorded

material culture associated with the Folsom Mining District that lie inside the current APE consisting of the Willow Hill Springs resource (P-34-002237) and an associated feature known as Lindstrom's Feature 18 (which is considered to be both elements of the Prairie Diggings Placer Mining District [P-34-002306] and the Folsom Mining District [P-34-000335]). The Prairie Diggings Placer Mining District and the Willow Hill Springs site are described in more detail below.

Resource P-34-002306 – known as the Prairie Diggings Placer Mining District, this resource consists of placer mining remains which demonstrate early shallow placer mining, ground sluicing, drift mining, low-pressure hydraulic mining, and dry land dredging activities. The district comprises approximately 302 acres of placer mining remains and associated habitation sites and represents one of the mining areas within Prairie City's sphere of influence during the latter half of the 1800s. The district is situated north of Alder Creek and largely east of Prairie City Road, with the Willow Hill Reservoir and the entirety of the current APE lying within the district's western arm.

As of 2014, the overwhelming majority of the features associated with this district were noted to be destroyed through the construction of Folsom High School and residential and commercial development along Prairie City Road and U.S. 50. Today only two elements of the district are still intact within the current APE: including Willow Hill Reservoir itself (though its surroundings are noted to have been heavily modified through the development of a park around the reservoir's circumference) and what is known as "Lindstrom's Feature 18" (a large, steep-sided main drain for the ground sluice for the mining works now inundated by Willow Hill Reservoir) associated in NCIC records with both the Prairie Diggings Placer Mining District and the Willow Springs Hill resource (P-34-002237). Records on file at the NCIC indicate that as of 2014, significant changes to the area's landscape have caused the district to lose a significant level of integrity rendering the district no longer eligible for listing in the NRHP/CRHR.

Resource P-34-002237 – known as Willow Springs Hill, and also as the Willow Hill Reservoir, records on file with the NCIC indicate that this resource is now considered an element of both the Folsom Mining District (P-34-000335) and the Prairie Diggings Mining District (P-34-002306). This resource has been re-examined three times since its initial recording by S.G. Lindstrom, L. Lundemo, M. Panelli, J. Wells, and N. Wilson in 1992. Most recently examined by Ric Windmiller in 2005, this resource has been identified as the largest of the old mine pits on Willow Springs Hill. When this mine pit was worked, water was supplied by the Natoma Main Canal (resource P-34-000461). The main ground sluice drains at the south end of the Willow Springs Hill workings were dammed in 1902 to create the reservoir we now see today, in which water was stored for the Natomas Company's dredging operations. Scarps of the old pit works were present to the west and southwest sides of the reservoir, as were remnants of ditches among cobble piles exposed at the southeast edge of the reservoir as recently as 1993; however, Windmiller's 2005 survey revealed that the setting had been altered by the construction of the Folsom High School on the northwest and west edges of the reservoir. Nonetheless, Windmiller noted that the cobble piles and herringbone drains were still visible at the southeast corner of the reservoir in 2005. He also noted that below the two dikes on the south side of the reservoir, large piles of cobbles next to the massive drains and remnant mine scarps on the west and southwest sides of the reservoir were still visible in 2005, along with the herringbone pattern of drains and cobble piles at the southeast corner. As of 2005, Windmiller recommended that the Willow Hill Reservoir is eligible for listing on the NRHP under Criterion A (association with important events or historic themes) and Criterion C (embodies the distinct characteristics of a type, period or method of construction) (Windmiller 2005, Tardoff 1994).

Twenty-one additional features related to the Willow Hill Reservoir have been recorded as lying within or within the vicinity of the current APE, however all but two of them have been previously determined

to be ineligible for listing on the NRHP as confirmed by a letter of concurrence from the California SHPO to Will Ness, Chief of the Sacramento Office of the USACE Sacramento District dated July 21, 2006.

As a result, only two features associated with the Willow Hill Reservoir have been identified as potentially remaining NRHP/CRHR eligible and within the current APE. These features include the Willow Hill Reservoir itself, and what is known as "Lindstrom's Feature 18" (a ground sluice drain) sometimes referred to in NCIC records as P-34-002306 due to its previous identification as an element of the Prairie Diggings Placer Mining District.

During a 1993 survey, Lindstrom's Feature 18 was found to consist of a large, steep-sided main drain for the ground sluice for the mining workings now inundated by Willow Hill Reservoir. From the point of this intersection westward to Prairie City Road, the drain is described by Lindstrom in 1993 as increasingly eroded and taking the form of a steep, slightly enlarged natural drainage.

During a 1994 Caltrans study of the area, Judy Tardoff identified Lindstrom's Feature 18 as a locus of the Prairie Diggings Placer Mining District and evaluated the ground sluice drain feature. Within her evaluation Tardoff noted that the feature was in fair to good condition and that it qualified as a contributing resource to the Prairie Diggings Placer Mining District under Criterion A: association with important events, and historic themes (Tardoff 1994:31).

When the feature was revisited by Windmiller in 2005, the portion of Lindstrom's Feature 18 on the immediate south side of Willow Hill Reservoir was found to reflect early mining associated with the Willow Hill pit workings which are now inundated by the reservoir itself. However, the western portion of the drain was observed to have the appearance of a natural drainage, as described earlier by Lindstrom. Therefore, this western portion of the drainage does not convey any historical significance, while the portion of the drain on the immediate south side of the reservoir, with its large piles of washed cobbles, does convey its historical significance. Therefore, Windmiller argued that the portion of the drain closest to the reservoir retains its eligibility for the NRHR/CRHR under Criterion A/1 as part of the Willow Hill Springs site, which he also recommended eligible for the NRHP/CRHR under criteria A/1 and C/3. Windmiller also noted that the northeast end of the drain had been obliterated by dragline dredging and more recent aggregate operations, and that the western portion of the drain has been modified by two overflow channels from Willow Hill Reservoir.

Resource P-34-000461 – known as the Natomas Ditch, this excavated ditch was bolstered by a series of wooden flume segments and was originally constructed by the Natomas Company beginning in 1851. The Natomas Company reached Willow Springs Hill with the ditch by 1853. Wooden flumes were built to augment the ditch's water delivery system across depressions and hillsides. Around the turn of the 20th century, this water delivery system was further bolstered by the development of a number of feeder systems, and water from the ditch was used to serve a number of additional needs besides mining. As a result of its expanded use the system was periodically improved and modified throughout the 20th century.

Various segments of the Natomas Ditch have been examined 13 times since the resource's original recording by M. L. Russo of the NCIC in 1986. The segment of the Natomas Ditch which lies within the current APE, and which connects to the northern extent of the Willow Hill Reservoir, was notably recorded as Segment C-D in 1989 by William Shapiro. During his recording, Shapiro noted that this segment of the ditch (as well as others) had been subject to various periodic upgrades and changes throughout the twentieth century, including the addition of metal gates, concrete linings, and metal

cattle crossings. As a result of these numerous and significant modifications, which also included partial realignments, Shapiro reported the Natomas Ditch as being "no longer reflective of original construction details, materials, or workmanship" and as a result, corroborated earlier recommendations that the resource be considered not eligible for inclusion on the NRHP (Shapiro 1989:2).

Historic-Era Aerial Imagery Review

Historic-era maps examined for this analysis included: USGS 15-minute series quadrangle maps for *Folsom*, *California* from 1941 and 1944, and USGS 7.5-minute series quadrangle maps for *Folsom, California* from 1954, 1967, and 1975. A summary of the findings from this analysis can be found in Table 7, *Summary of Findings from Historic-Era Maps Depicting the APE*.

TABLE 7: SUMMARY OF FINDINGS FROM HISTORIC-ERA MAPS DEPICTING THE APE

Map Edition	Features Depicted
USGS 15-minute Folsom, CA Quadrangle Map (1941)	• Present-day Prairie City Road visible running northwest to southeast, southwest of APE • Present-day U.S. 50 visible running east-west, south of the APE • Unnamed road segment visible leading to a structure southwest of the APE, extending southwesterly from Prairie City Road • Natomas Ditch depicted traversing through the APE, northeast-southwest, running through the Willow Hill Reservoir
USGS 15-minute Folsom, CA Quadrangle Map (1944)	• No significant changes observed since the 1941 map.
USGS 7.5-minute Folsom, CA Quadrangle Map (1954)	• Name "Willow Hill Res" marked above APE (above and to the left) • Mining activity to the northeast depicted to have expanded southerly toward the APE, with additional mining activity depicted immediately northwest of the APE. • Mining activity directly around the APE now gone. • Developed land depicted immediately northwest, north, east, southeast, and south of the APE. • Unnamed road extending southwesterly from Prairie City Road and associated structure, now gone. • Unnamed road extending southwesterly from Prairie City Road in a round shape, surrounding a structure. • Unnamed road extending northerly from U.S. 50, passing the east side of the APE, and joining present-day East Bidwell Street. • "Prairie City (Site)" marked on map, immediately south of APE and north of U.S. 50. • Unnamed road extending easterly from Prairie City Road, south of U.S 50, seemingly associated with the structure noted on the 1941 quadrangle. • No other significant changes observed since 1944 map.
USGS 7.5-minute Folsom, CA Quadrangle Map (1967)	• Prairie City Road/Highway 50 junction depicted, complete with entrances and exits to the north and south, south of the APE. Developed land depictions around the APE have diminished, now development is only depicted to the northwest and south of the APE. • Unnamed road extending easterly from Prairie City Road south of U.S. 50 with associated structure noted in previous map is now gone.

Map Edition	Features Depicted
USGS 7.5-minute Folsom, CA Quadrangle Map (1967) (cont.)	• Roads around east and north sides of APE have become more developed and numerous, seemingly progenitors to present-day Iron Point Road and residential roads in the general Prairie Oaks and Willow Springs areas. • No other significant changes observed since 1954 map.
USGS 7.5-minute Folsom, CA Quadrangle Map (1975)	• This is an aerial photograph rather than an illustrated topographic map like previous maps in this series. • Large-scale development directly northeast of the APE is visible. • Large groves of trees and/or dense vegetation is visible north, east, and south of the APE. • Numerous access roads visible in the areas surrounding northern, northwestern, western, southwestern, and eastern portions of the APE. • No other significant changes observed since 1967.

Historic-era aerial photographs examined for this analysis included photographs taken in 1952, 1958, 1964, 1966, 1984, 1993, 1998, 2002, 2005, 2009, 2010, 2012, 2014, 2016, 2018, 2020, and 2022 (NETR Online 2024). The findings from this historic-era aerial photograph analysis are presented in Table 8, *Summary of Findings from Historic-Era Aerial Photographs Depicting the Project APE*.

TABLE 8: SUMMARY OF FINDINGS FROM HISTORIC-ERA AERIAL PHOTOGRAPHS DEPICTING THE PROJECT AREA

Aerial Photograph Edition	Features Depicted
Aerial Photograph from 1952	• Prairie City Road is visible as well as what is currently commonly referred to as Rebel Hill Ditch, Natomas Ditch, and the progenitor road to U.S. 50. • There is an unnamed channel running east-west, north of Project Area. • Multiple, unnamed roads are visible southeast of and within the southeast segment of the Project Area. • There is a large building west of the Project Area, approximately 160 ft by 60 ft.
Aerial Photograph from 1958	• No changes observed in project vicinity since 1952.
Aerial Photograph from 1964	• A small section of the unnamed waterway noted in the 1952 photograph has been manipulated – a tributary is gone and a portion of the waterway has been redirected to more linearly follow the rest of it. • A new access road is now present near the southeastern segment of APE. • No other significant changes were observed in the vicinity of the project since 1958.
Aerial Photograph from 1966	• The water level within Willow Hill Reservoir's southern edge and its entire eastern edge has receded (likely seasonal). • U.S. 50 has been expanded and paved to the south of the Project Area. • An unknown road – the eastern section of it reminiscent of modern Iron Point Rd. – is now visible approximately 690ft north of the APE's northern boundary. • No other significant changes were observed in the vicinity of the project since 1964.
Aerial Photograph from 1984	• Parcels to the southwest and northeast of the Project Area has been cleared of vegetation. • Willow Hill Reservoir water levels observed resuming pre-1966 levels (likely seasonal). • Several dirt/access roads are now present directly southwest of the APE. • No other significant changes were observed in the vicinity of the project since 1966.

Aerial Photograph Edition	Features Depicted
Aerial Photograph from 1993	• Additional access roads as well as a turnaround is now present just outside of the southwestern segment of the APE. • The water level within a portion of Willow Hill Reservoir's southern edge and its entire eastern edge have receded (likely seasonal). • Business center constructed in the southwestern project vicinity – most likely Intel – including a pond. • Residential housing constructed in the northeastern project vicinity. • Paved road, running southwest-east, constructed approximately 380 feet north of the Project Area. • No other changes observed in Project Area or larger project vicinity since 1984.
Aerial Photograph from 1998	• Current access road that is the southwestern segment of APE has been created by redirecting the pre-existing access road in the same area. • Large-scale land clearing/development on the Project Area's southern, southwestern, western, northwestern, and northern boundaries. • Folsom High School and associated infrastructure constructed to the west and northwest of the APE. • Modern-day Iron Point Rd. constructed, running west-southeast north of the Project Area. • Residential development approximately 0.2 mile north of the Project Area. • No other changes observed in Project Area or larger project vicinity since 1993.
Aerial Photograph from 2002	• Buildings added to the cleared land northwest of the Project Area, for Folsom High School. • No other changes observed within the APE or elsewhere in the vicinity of the APE since 1998.
Aerial Photograph from 2005	• Access roads in southern portion of APE apparent. • Prairie City stadium constructed directly southwest of the project vicinity. • No other changes observed in Project Area or its vicinity since 2003.
Aerial Photograph from 2009	• Appearance of current access road, southern segment of APE, running north-south from southern boundary of APE. • Barnhill Dr. constructed directly east of the Project Area.
Aerial Photograph from 2010	• Dock installed on southern boundary of Project Area, projecting into waters of the reservoir from a north-south running access road directly south of APE. • California ISO constructed southeast of Project Area. • Present-day Parkside Signature home lot just east of eastern border of APE is cleared. • No other changes observed in Project Area or its vicinity since 2009.
Aerial Photograph from 2012	• Reservoir waters have receded further from the eastern shore. • Present-day Parkside Signature home lot just east of eastern border of APE is paved. • No other changes observed in Project Area or its vicinity since 2010.
Aerial Photograph from 2014	• Parkside Signature Home lot filled with residential structures. • No other changes observed in Project Area or its vicinity since 2012.
Aerial Photograph from 2016	• Water levels appear to have risen slightly in the reservoir. • The Goddard School of Folsom was constructed, approximately 0.26 mile east of eastern project boundary. • No other significant changes observed in Project Area or its vicinity since 2014.
Aerial Photograph from 2018	• No significant changes observed in Project Area or its vicinity since 2016.

Aerial Photograph Edition	Features Depicted
Aerial Photograph from 2020	• No significant changes observed in Project Area or its vicinity since 2020.
Aerial Photograph from 2022	• Reservoir waters appear to have receded centrally. • No other significant changes observed in Project Area or its vicinity since 2020.

Native American Outreach

On November 18, 2024, HELIX requested that the NAHC conduct a search of the SLF for the presence of Native American sacred sites or human remains in the vicinity of the project site. A written response received from the NAHC on November 27, 2024, stated that the results of the SLF search were negative. On March 20, 2025, HELIX sent emails to at least one point of Native American contact for each tribe listed by the NAHC as potential sources of information related to tribal and cultural resources in the vicinity of the Project Area. Contacted Native American points of contact included:

- Pamela Cubbler, Vice Chairperson, Colfax-Todds Valley Consolidated Tribe
- Clyde Prout, Chairperson, Colfax-Todds Valley Consolidated Tribe
- CTVCT Preservation Representative, Cultural Preservation Department, Colfax-Todds Valley Consolidated Tribe
- Kara Perry, Director of Site Protection, Shingle Springs Band of Miwok Indians
- James Sarmento, Executive Director of Cultural Resources, Shingle Springs Band of Miwok Indians
- Dustin Murray, Tribal Administrator, Shingle Springs Band of Miwok Indians
- Malissa Tayaba, Vice Chairperson, Director of TEK, Shingle Springs Band of Miwok Indians
- Krystal Moreno, TEK Program Manager, Shingle Springs Band of Miwok Indians
- Regina Cuellar, Chairperson, Shingle Springs Band of Miwok Indians
- Ben Cunningham-Summerfield, Cultural Advisor, TSI-AKIM Maidu of the Taylorsville Rancheria
- Donald Ryberg, Chairman, TSI-AKIM Maidu of the Taylorsville Rancheria
- James Moon Jr, Tribal Member, TSI-AKIM Maidu of the Taylorsville Rancheria
- Josef Fore, Tribal Historic Preservation Officer, United Auburn Indian Community of the Auburn Rancheria; and
- Representative at the Cultural Preservation Department, Wilton Rancheria

As of the date of this report, no responses have been received from these Native American points of contact. The initial correspondence with the NAHC, and a representative outreach email sent out to the identified points of tribal contact are included in Attachment C of the Cultural Resources Assessment (HELIX 2025c).

Pedestrian Survey

On December 3, 2024, HELIX Senior Archaeologist Benjamin Siegel, M.A., RPA, surveyed the proposed Project Area. The survey involved the systematic investigation of the APE's ground surface by walking in parallel 15-meter transects. Representative site photographs are provided in Attachment D of the Cultural Resources Assessment (HELIX 2025c).

The terrain in the project site is varied. The APE is dominated by the Willow Hill Reservoir itself, which has an earthen dam wall on its southern extent, and native and invasive reeds and grasses lining its western, northern, and eastern boundaries. The reservoir itself is currently in use as part of a public park, with a floating dock located just east of the earthen dam wall, and a walking trail located around the entire perimeter of the reservoir. A small jungle gym for children is also located to the southeast of the floating dock.

The lowest point of elevation within the APE is to the south of the Willow Hill Reservoir's earthen dam, where activities associated with the installation of the downstream valve replacement are planned, with an elevation of approximately 297 feet amsl (Photographs 1 and 2). The top of the dam is approximately 330 feet amsl with the area around the perimeter of the reservoir consisting of relatively flat terrain. The reservoir dam where construction activities for the proposed project will take place was found to be unremarkable, consisting of an approximately vehicle width area of compacted dirt, which stood approximately eight feet above the reservoir's water level at the time of survey (Photograph 1). The proposed temporary coffer dam location was found to be entirely submerged at the time of survey, several feet north of the reservoir's earthen dam (Photograph 3). The proposed laydown area for construction equipment and vehicles was found to be occupied by a small stand of trees and grasses, just to the northwest of the earthen dam's location (Photograph 4).

The southeastern arm of the APE includes a paved sidewalk/path which leads to a wooden bridge that traverses over a previously recorded cultural resource identified by the NCIC as P-34-002306 (Prairie Diggings Placer Minning District) but which actually consists of a historic mining ditch described by Lindstrom (1993) and Windmiller (2005) as Lindstrom's Feature 18, a ground sluice drain related to the Willow Springs resource (P-34-002237) which has been modified at its western most edge by two overflow channels from the Willow Hill Reservoir (Photograph 5). Beyond the bridge, the APE's southeastern arm was characterized by a dirt and mulched walking path which extends past dense trees, into an open area, before running to the southwest of a developed residential area (Photograph 6). This southeastern extent also serves as a pedestrian entrance to the Willow Hill Reservoir Park. The southwestern arm of the APE, which serves as another access path for vehicles and equipment into the APE is characterized by two compacted dirt pathways which wrap around the southern perimeter of the Folsom High School stadium. At the southwestern extent of the southwestern arm, the APE meets with a chain link fence line. To the west of this fence lies the right-of-way of Prairie City Road.

During the pedestrian survey the compacted dirt pedestrian trail which circumscribes the Willow Hill Reservoir was also walked and examined. To the east and northeast of the perimeter trail residential development was observed. Near the northern extent of the trail a wood footbridge was observed

traversing across the location where the Natomas Ditch (P-34-000461) connects with the northern extent of the Willow Hill Reservoir (Photographs 7 and 8). Here the Natomas Ditch was approximately five meters wide, with dirt walls measuring approximately three meters deep lined with large river worn cobbles. The ditch was observed continuing to convey water into the reservoir though the water level was low (approximately one meter deep) and slow moving. The ditch was also observed to extend north from this location, with similar conditions noted beyond the boundaries of the current APE. From the west of the footbridge which crosses the Natomas Ditch, the entirety of the reservoir was visible, as was the portion of the pedestrian trail which traverses the western perimeter of the Willow Hill Reservoir (Photograph 9). To the north of the reservoir park commercial development and parking lots were noted. To the northwest of the park trail, a small flat and grassy area was observed just outside of the APE. The areas to the west and southwest of the western side of the reservoir park were found to be occupied by the Folsom High School campus, tennis courts, and sports stadium.

Ultimately, the entire APE was systematically surveyed via pedestrian survey. The HELIX survey did not identify any previously unrecorded cultural resources in the APE. However, the HELIX survey did relocate three previously recorded cultural resources within the APE, which included:

- Willow Hill Reservoir, which consists of the inundated remains of the Willow Hill Springs mining works (P-34-002237);
- A segment of Lindstrom's Feature 18 of the Willow Hill Springs resource (P-34-002237), which consists of a ground sluice drain related to the mining works; and
- A segment of the Natomas Ditch (P-34-000461), where it connects with the Willow Hill Reservoir.

Impact Analysis

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

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

Less than Significant with Mitigation. Previously conducted cultural investigations identified three cultural resources within the APE. Two of these cultural features and sites are associated with the Willow Springs Hill resource (P-34-002237), the Prairie Diggings Placer Mining District (P-34-002306), and the Folsom Mining District (P-34-000335). These features/sites retain their eligibility for inclusion in the NRHP (SHPO, July 21, 2006). These features consist of Lindstrom's Feature 18 of the Willow Springs Hill mining site (a ground sluice drain); and the Willow Hill Reservoir itself, which contains the inundated remains of the Willow Springs Hill mining works. Previous studies also indicated that a segment of the Natomas Ditch (P-34-000461) connects within the northern edge of the Willow Hill Reservoir.

The HELIX field survey of the current APE identified the Willow Hill Reservoir itself (P-34-002237); and a small segment of Lindstrom's Feature 18 of the Willow Springs Hill resource (P-34-002237). In addition, HELIX's field survey of the current APE also identified a small segment of the Natomas Ditch (P-34-000461). However, this segment of the Natomas Ditch has been recommended as not eligible for inclusion in the NRHP/CRHR, a conclusion with which HELIX concurs. Therefore, there is no potential for effect to this resource, as it does not qualify as a historic property.

The Willow Hill Reservoir contains the inundated remains of the Willow Hill Springs Mining Works (P-34-002237). The Willow Hill Reservoir has been in public use as part of the Willow Hill Reservoir Community Park for the past several decades, and has been previously recommended as eligible for listing on the NRHP/CRHR under criterion A/1 (association with important events or historic themes) and C/3 (embodies the distinct characteristic of a type, period or method of construction) by Ric Windmiller (2005). The proposed project would involve the temporary damming of a small (approximately 400-square-foot) portion of the reservoir immediately adjacent to the reservoir's earthen dam, the temporary laydown of construction equipment and vehicles to the adjacent southwest of the reservoir, the temporary lowering of the reservoir's water level, and the replacement of the dam gate valve and downstream valve. The dam gate valve is entirely submerged within the Willow Hill Reservoir and, as such, cannot be perceived by visitors to the reservoir as appurtenant structure related to the significance of the reservoir. The downstream valve would be replaced; however, it does not consist of original components and is not a contributing feature to the reservoir's NRHP/CRHR eligibility.

Consequently, the proposed project activities would not change resource P-34-002237's character or use such that its historic integrity would be diminished. Following construction, the Willow Hill Reservoir would retain its association with important themes in National or California history and would retain the distinctive characteristics of the nineteenth century mining techniques: that of a reservoir that provided water for related industrial mining uses. Upon the completion of the project, the project site would return to pre-construction conditions and would continue to provide a distinctive visual remnant of historical mining activities in the area. As a result, the proposed project would not result in an adverse effect (as defined in 36 CFR §800.16[l][1]) or a signification impact to a historical resource (as defined in §15064.5[b] of the CEQA Guidelines).

Lindstrom's Feature 8 consists of a ground sluice drain related to the Willow Hill Springs Mining Works (P-34-002237) and coincides with the present APE only for a short crossing of the southeastern arm of the current APE. During a 2005 study, Ric Windmiller recommended that Lindstrom's Feature 18 retained its potential eligibility for listing in the NRHP/CRHR under criteria A/1. The HELIX survey of the APE identified a wooden bridge that crosses the Lindstrom's Feature 18 ditch. The proposed project could route construction-related traffic in the vicinity of Lindstrom's Feature 18 over the wooden bridge, including equipment, vehicles, and project personnel to and from the location of the dam valve replacement. There would be no incursion into the area surrounding Lindstrom's Feature 18, and, therefore, no modification of its alignment, construction characteristics, or appurtenant features. As a result, the proposed project would not result in an adverse effect (as defined in 36 CFR §800.16[l][1]) or a signification impact to a historical resource (as defined in §15064.5[b] of the CEQA Guidelines).

However, in the unlikely event that archaeological cultural resources are discovered during project construction, implementation of Mitigation Measure CUL-1 would reduce potential impacts to less than significant.

Mitigation Measure CUL-1: Accidental Discovery of Cultural Resources

In the event that cultural resources are exposed during ground-disturbing activities, construction activities shall be halted within 100 feet of the discovery. Cultural resources could consist of, but are not limited to: stone, bone, wood, or shell artifacts, or features, including hearths, structural remains, or historic dumpsites. If the resources cannot be avoided during the remainder of construction, an archaeologist retained by the project Contractor, who meets the Secretary of the Interior's *Professional Qualifications Standards*, shall assess the resource and provide appropriate management

recommendations. If the discovery proves to be National Registry of Historic Places (NRHP) or California Register of Historical Resources (CRHR)-eligible, additional documentation and analysis, such as data recovery excavation, may be warranted.

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

Less than Significant with Mitigation. No human remains are known to exist within the project site, and there were no indications of human remains found during the field survey. However, there is the potential that subsurface construction activities associated with the proposed project, such as trenching and grading, could potentially damage or destroy previously undiscovered human remains. Accordingly, implementation of Mitigation Measure CUL-2 would reduce potential impacts to less than significant.

Mitigation Measure CUL-2: Accidental Discovery of Human Remains

In the event of an accidental discovery or recognition of human remains, Public Resources Code (PRC) Section 5097.98 must be followed. Once project-related earthmoving begins and if there is a discovery or recognition of human remains, the project Contractor shall inform the City and the following steps shall be taken:

1. There shall be no further excavation or disturbance of the specific location, or any nearby area reasonably suspected to overlie adjacent human remains until the Sacramento County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains are Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours, and the NAHC shall identify the person or persons it believes to be the "most likely descendant" of the deceased Native American. The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains, and any associated grave goods as provided in PRC Section 5097.98, or

2. Where the following conditions occur, the landowner or their authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendent or on the project area in a location not subject to further subsurface disturbance:

    - The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the commission;

    - The descendent identified fails to make a recommendation; or,

    - The landowner or his authorized representative rejects the recommendation of the descendent, and the mediation by the NAHC fails to provide measures acceptable to the landowner.

VI. ENERGY

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

Environmental Setting

California's electricity needs are satisfied by a variety of entities, including investor-owned utilities, publicly owned utilities, electric service providers and community choice aggregators. In 2020, the California power mix totaled 272,576 gigawatt hours (GWh). In-state generation accounted for 51 percent of the state's power mix. The remaining electricity came from out-of-state imports (California Energy Commission [CEC] 2021a). Table 9, *California Electricity Sources 2020*, provides a summary of California's electricity sources as of 2020.

TABLE 9: CALIFORNIA ELECTRICITY SOURCES 2020

Fuel Type	Percent of California Power
Coal	2.74
Large Hydro	12.21
Natural Gas	37.06
Nuclear	9.33
Oil	0.01
Other (Petroleum Coke/Waste Heat)	0.19
Renewables (Excluding Large Hydro)	33.09
Unspecified	5.36

Source: CEC 2021a

Natural gas provides the largest portion of the total in-state capacity and electricity generation in California, with nearly 45 percent of the natural gas burned in California used for electricity generation in a typical year. Much of the remainder is consumed in the residential, industrial, and commercial sectors for uses such as cooking, space heating, and as an alternative transportation fuel. In 2012, total natural gas demand in California for industrial, residential, commercial, and electric power generation was 2,313-billion cubic feet per year (bcf/year), up from 2,196-bcf/year in 2010 (CEC 2021b).

Transportation accounts for a major portion of California's energy budget. Automobiles and trucks consume gasoline and diesel fuel, which are nonrenewable energy products derived from crude oil. Gasoline is the most used transportation fuel in California, with 97 percent of all gasoline being consumed by light-duty cars, pickup trucks, and sport utility vehicles (SUVs). In 2015, 15.1-billion gallons

of gasoline were sold in California (CEC 2021c). Diesel fuel is the second most consumed fuel in California, used by heavy-duty trucks, delivery vehicles, buses, trains, ships, boats, and farm and construction equipment. In 2015, 4.2-billion gallons of diesel were sold in California (CEC 2021d).

Impact Analysis

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

Less than Significant Impact. The proposed project would not result in potentially significant environmental impact due to wasteful, unnecessary consumption of energy resources, during project construction or operation. The proposed project would replace and improve the existing dam infrastructure at the Willow Hill Reservoir. Energy use associated with the proposed project would be primarily in the form of diesel and gasoline consumption from on- and off-road vehicles and equipment used during construction. Construction would use standard methods and equipment to meet the project objectives and would not create a wasteful, inefficient, or unnecessary consumption of energy resources.

Construction of the project would incorporate on-site energy conservation features. The following practices would be implemented during project construction to reduce waste and energy consumption:

- Follow maintenance schedules to maintain equipment in optimal working order and rated energy efficiency, which would include, but not be limited to, regular replacement of filters, cleaning of compressor coils, burner tune-ups, lubrication of pumps and motors, proper vehicle maintenance, etc.;

- Reduce on-site vehicle idling; and,

- In accordance with CALGreen criteria as well as state and local laws, at least 50 percent of on-site construction waste and ongoing operational waste would be diverted from landfills through reuse and recycling.

Operation of the proposed valve operator infrastructure would be mechanically operated and would not add new energy requirements for continued operation and maintenance of the Willow Hill Reservoir dam. Therefore, the impact would be less than significant, and no mitigation would be necessary.

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

Less than Significant Impact. The proposed project would not include energy consumption sources that are directly subject to State or local energy efficiency plans. During project operation, maintenance activities would be similar to existing conditions and would not involve an increase in energy use. Therefore, the proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. The impact would be less than significant, and no mitigation would be necessary.

VII. GEOLOGY AND SOILS

		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:					
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 on- or off-site 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 waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Environmental Setting

Regional Geology

Folsom is located within the Great Valley geomorphic province, composed of the San Joaquin and Sacramento Valleys. The province is generally bounded by the Sierra Nevada Mountains to the east, Coast Ranges to the west, Transverse Ranges to the south, and Klamath Mountains to the north. The region has been determined by the California Division of Mines and Geology (CDMG) as generally being underlain on the west with alluvium, lake, playa, and terrace deposits and on the east with Pliocene or Pleistocene sandstone, shale, and gravel deposits (City 2018).

Soils

Four soil map units are mapped within the project site: Xerorthents, dredge tailings, 2 to 50 percent slopes; Redding gravelly loam, 0 to 8 percent slopes, Major Land Resource Area (MLRA) 17; Red Bluff loam, 2 to 5 percent slopes; and Hadselville-Pentz complex, 2 to 30 percent slopes. The general characteristics and properties associated with these soils are summarized in Table 10, *Soil Characteristics* (Natural Resources Conservation Service [NRCS] 2024).

TABLE 10: SOIL CHARACTERISTICS

SOIL NAME	RUNOFF CLASS	SLOPE (PERCENTAGE)	DRAINAGE CLASS
Xerorthents, dredge tailings	Low	2-50	Somewhat excessively drained
Redding gravelly loam	Very High	0-8	Moderately well drained
Hadselville-Pentz complex	Low	2-30	Moderately well drained
Red Bluff loam	Medium	2-5	Well drained

Source: NRCS 2024

Soils that expand by shrinking or swelling can create a hazard, possibly causing structural damage over a long period of time. Expansive soils are largely comprised of clays, which expand in volume when water is absorbed and shrink as the soil dries, stressing building foundations, roads, and other structures. None of the soils underlying the City have high shrink/swell potential; however, the small area of the project site located at the intersection of the proposed southwestern access route and Prairie City Road contains Red Bluff soil, which has a moderate shrink/swell potential (City 2018).

Soil erosion creates a potential hazard for land development, both to on-site structures and waterways and structures downstream of eroding soil. The northeastern portion of the project site is characterized as low erosion susceptibility, and the southwestern portion of the project site is characterized as medium erosion susceptibility (City 2018).

Regulatory Setting

The City of Folsom regulates the effects of soils and geological constraints on urban development primarily through enforcement of the California Building Code (CBC), which requires the implementation of engineering solutions for constraints to urban development posed by slopes, soils, and geology. Additionally, the City has adopted a Grading Code (Folsom Municipal Code Section 14.29) that regulates grading citywide to control erosion, storm water drainage, revegetation, and ground movement (City 2025).

Impact Analysis

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?

Less than Significant Impact. The proposed project would not cause a substantial adverse impact, either directly or indirectly, involving the rupture of an earthquake fault mapped as part of an Alquist-Priolo Earthquake Fault Zoning map. According to the DOC Earthquake Zones of Required Investigation Map, the project is within an unevaluated area, and no fault zones are known to exist within the project site (DOC 2024b). According to the Fault Activity Map of California, prepared by the California Geological Survey, the closest fault to the site is indicated to be the Bear Mountain Fault Zone of the Foothills Fault System, located approximately 10 miles east of the site. The nearest Alquist-Priolo Earthquake Fault Zone is the Cleveland Hill Fault of the Foothills Fault System, located approximately 60 miles north of the site (DOC 2024c). Ground rupture is unlikely at project site; therefore, the project would not expose people or structures to potential substantial adverse effects caused by the rupture of a known fault. The impact would be less than significant, and no mitigation would be necessary.

ii. Strong seismic ground shaking?

Less than Significant Impact. The proposed project would not cause a substantial adverse impact, either directly or indirectly, from strong seismic ground shaking. While earthquake-induced ground shaking could occur in the project vicinity, historically, seismic activity in the Folsom area has been limited. The proposed project would be constructed in accordance with standards imposed by the City of Folsom through the Grading Code, and in compliance with CBC requirements. As a result, the project would not expose people or structures to substantial adverse effects of seismic events. Therefore, the impact would be less than significant, and no mitigation would be necessary.

iii. Seismic-related ground failure, including liquefaction?

Less than Significant Impact. The proposed project would not cause a substantial adverse impact, directly or indirectly, from seismic-related ground failure, including liquefaction. Liquefaction is a soil strength and stiffness loss phenomenon that typically occurs in loose, saturated cohesionless soils (such as poorly compacted sand) due to strong ground shaking during earthquakes. The potential for liquefaction at a site is usually determined based on the results of a subsurface geotechnical investigation and the groundwater conditions beneath the site. Hazards to buildings associated with liquefaction include bearing capacity failure, lateral spreading, and differential settlement of soils below foundations, which can contribute to structural damage or collapse. As mentioned in a.i) the project is within an unevaluated area and is not located within a known liquefaction zone. Additionally, as mentioned in a.ii), the seismic activity in the Folsom area has been limited. The proposed project would be designed in accordance with CBC standards for seismic stability. Therefore, liquefaction is unlikely at the project site and the impact would be less than significant. No mitigation would be necessary.

iv. Landslides?

Less than Significant Impact. The proposed project would not directly or indirectly cause a potential substantial adverse impact involving landslides. The project site consists of the seven-acre reservoir and areas of open space. As mentioned in question a.i), the project site is not located near a fault and is not located within an Alquist-Priolo Earthquake Fault Zone. Additionally, according to the Earthquake Zones of Required Investigation Map, the project is not within a known landslide zone (DOC 2024b). Therefore, landslides are unlikely at the project site and impacts would be less than significant. No mitigation would be necessary.

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

Less than Significant Impact. The proposed project would not result in substantial soil erosion or the loss of topsoil. Construction of the proposed project would require surface disturbance, which may include the removal of stabilizing surfaces, excavation, and backfill. However, after completion of construction activities, these surfaces would be restabilized, and there would be no change of erosion potential in the project area. Potential short-term impacts from construction would be addressed through conformance with applicable elements of the National Pollutant Discharge Elimination System (NPDES) Construction General Permit, including implementation of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP would implement Best Management Practices (BMPs) during construction to reduce on-site erosion of disturbed soil. Therefore, with implementation of the SWPPP and BMPs, the project would not result in substantial soil erosion or the loss of topsoil, and the impact would be less than significant.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less than Significant Impact. The proposed Project would not be located on or result in unstable geologic deposits or soils such that on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse would potentially occur. Soils on the project site are mapped as Xerorthents, dredge tailings, 2 to 50 percent slopes; Redding gravelly loam, 0 to 8 percent slopes; Hadselville-Pentz complex, 2 to 30 percent slopes; and Red Bluff loam, 2 to 5 percent slopes. The soil types include somewhat excessively drained, moderately well drained, and well drained classes. Runoff classes include low, medium, and very high (NRCS 2024). As described above in the impact analysis for question a.iv) above, the proposed project would not result in adverse effects related to landslides. The potential for lateral spreading and subsidence is related to a site's potential for liquefaction. As described in question a.iii), the project site is not located within a liquefaction zone and the potential adverse effects related to liquefaction would be less than significant. Additionally, the project would be designed in accordance with the CBC, which includes measures to reduce geologic impacts. Therefore, the impact would be less than significant, and no mitigation would be necessary.

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

Less than Significant Impact. Expansive soils are fine-grained soils (generally high plasticity clays) that can undergo a significant increase in volume with an increase in water content, and a significant decrease in volume with a decrease in water content. Changes in the water content of a highly expansive soil can result in severe distress to structures constructed on or against the soil. The shrink swell behavior of expansive soils can lead to damage of project improvements over time if not addressed appropriately prior to construction. Expansive soils generally consist of clay type soils such as smectite, bentonite, montmorillonite, beidellite, vermiculite, and others are known to expand with changes in moisture content. According to the City General Plan EIR, Figure 11-2, none of the soils mapped in the City have high shrink/swell potential; however, a small portion of the project site located at the intersection of the proposed southwestern access route and Prairie City Road contains Red Bluff soil, which has a moderate shrink/swell potential (City 2018). The proposed project would be constructed in accordance with standards imposed by the City of Folsom through the Grading Code, and in compliance with the seismic safety requirements specified in the CBC, including standards to minimize

impacts from expansive soils. Therefore, the impact would be less than significant, and no mitigation would be necessary.

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?

No Impact. The proposed project does not include the use of septic tanks, nor does it include any features that require wastewater disposal or connection to the existing wastewater treatment system. Therefore, soil suitability for septic tanks or alternative wastewater disposal systems is not applicable in this case, and the proposed project would have no impacts associated with septic systems. No impact would occur, and no mitigation would be necessary.

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

Less than Significant with Mitigation. No previous surveys conducted in the project area have identified the project site as sensitive for paleontological resources or other geologically sensitive resources, nor have testing or ground disturbing activities performed to date uncovered any paleontological resources or geologically sensitive resources. Further, the EIR prepared for the 2035 Folsom General Plan concluded there are no known paleontological resources in the 2035 Plan Evaluation Area. While the likelihood of encountering paleontological resources and other geologically sensitive resources is considered low, project-related ground disturbing activities could affect the integrity of a previously unknown paleontological or other geologically sensitive resource, resulting in a substantial change in the significance of the resource. Therefore, the proposed project could result in potentially significant impacts to paleontological resources. Implementation of Mitigation Measure GEO-1 would reduce potentially significant impacts to a level of less than significant.

Mitigation Measure GEO-1: Avoid and Minimize Impacts to Paleontological Resources

In the event paleontological or other geologically sensitive resources (such as fossils or fossil formations) are identified during any phase of project construction, all excavations within 100 feet of the find shall be temporarily halted until the find is examined by a qualified paleontologist retained by the project Contractor, in accordance with Society of Vertebrate Paleontology standards. The paleontologist shall notify the appropriate representative at the City of Folsom who shall coordinate with the paleontologist as to any necessary investigation of the find. If the find is determined to be significant under the California Environmental Quality Act (CEQA), the City shall implement those measures which may include avoidance, preservation in place, or other appropriate measures, as outlined in Public Resources Code (PRC) Section 21083.2.

VIII. GREENHOUSE GAS EMISSIONS

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

This section is based on the Air Quality and Greenhouse Gas Emissions Analysis prepared by HELIX in April 2025 for the proposed project (HELIX 2025a).

Environmental Setting

Global climate change refers to changes in average climatic conditions on Earth, including temperature, wind patterns, precipitation, and storms. Global temperatures are moderated by atmospheric gases. These gases are commonly referred to as greenhouse gases (GHG) because they function like a greenhouse by letting sunlight in but preventing heat from escaping, thus warming the Earth's atmosphere.

GHGs are emitted by natural processes and human (anthropogenic) activities. Anthropogenic GHG emissions are primarily associated with: (1) the burning of fossil fuels during motorized transport, electricity generation, natural gas consumption, industrial activity, manufacturing, and other activities; (2) deforestation; (3) agricultural activity; and (4) solid waste decomposition.

The GHGs defined under California's Assembly Bill (AB) 32 include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF_6). Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. Estimates of GHG emissions are commonly presented in carbon dioxide equivalents (CO_2e), which weigh each gas by its global warming potential (GWP). Expressing GHG emissions in CO_2e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted. GHG emissions quantities in this analysis are presented in metric tons (MT) of CO_2e. For consistency with United Nations Standards, modeling, and reporting of GHGs in California and the U.S. use the GWPs defined in the Intergovernmental Panel on Climate Change's (IPCC) Fourth Assessment Report (IPCC 2007): CO_2 – 1; CH_4 – 25; N_2O – 298.

Significance Criteria

Given the relatively small levels of emissions generated by a project in relationship to the total amount of GHG emissions generated on a national or global basis, individual projects are not expected to result in significant, direct impacts with respect to climate change. However, given the magnitude of the

impact of GHG emissions on the global climate, GHG emissions from new development could result in significant, cumulative impacts with respect to climate change. Thus, the potential for a significant GHG impact is limited to cumulative impacts. According to Appendix G of the CEQA Guidelines, the following criteria may be considered in establishing the significance of GHG emissions:

Would the project:

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

The final determination of whether or not a project has a significant effect is within the purview of the lead agency pursuant to CEQA Guidelines Section 15064(b). The City's GHG Reduction Strategy Checklist, is a qualified plan for the reduction of greenhouse gases pursuant to CEQA Guidelines Section 15183.5 (City 2021). Consistency with the GHG Reduction Strategy Checklist may be used to determine the significance of the project's GHG emissions. However, as the proposed project is an infrastructure construction project and is not a typical land use development project, the City's GHG Reduction Strategy Checklist would not apply. However, SMAQMD has adopted a GHG construction threshold of 1,100 MT CO_2e per year for a project's construction emissions (SMAQMD 2020a). A project with an emission rate below this threshold is generally considered to have a less than significant impact on GHG emissions. SMAQMD's 1,100 MT CO_2e per year construction emissions threshold would apply to the proposed project.

Impact Analysis

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

Less than Significant Impact.

Construction Emissions

Project construction GHG emissions were quantified using CalEEMod 2022.1, as discussed in *Methodology and Assumptions*. GHG emissions would be generated by the project during construction (vehicle engine exhaust from construction equipment, on-road hauling trucks, vendor trips, and worker commuting trips). The results of the construction GHG emissions calculations were compared to the SMAQMD threshold in Table 11, *Construction GHG Emissions*. As shown in Table 11, the construction GHG emissions would not exceed the SMAQMD construction GHG threshold.

Table 11: CONSTRUCTION GHG EMISSIONS

Year of Emissions	Emissions (MT CO_2e)
2026	51
SMAQMD Construction Threshold (per year)	*1,100*
Exceed Threshold?	No

Source: HELIX 2025a
GHG = greenhouse gas; MT = metric tons; CO_2e = carbon dioxide equivalent

Operational Emissions

Operation of the proposed project would involve the continued maintenance of the dam infrastructure and the Willow Hill Reservoir. Staff that currently maintain the dam and Willow Hill Reservoir, typically two City staff at a given time, would perform the maintenance tasks required for the proposed project and would require only occasional, "as-needed" maintenance trips. Changes in project operational emissions would be negligible compared to operational emissions from the existing dam and Willow Hill Reservoir.

Impact Summary

The project's calculated construction period GHG emissions would not exceed the SMAQMD's construction threshold. Operation of the proposed project would result in negligible new GHG emissions. Therefore, the project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and the impact would be less than significant.

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

Less than Significant Impact. There are numerous State plans, policies, and regulations adopted for the purpose of reducing GHG emissions. Senate Bill (SB) 32 requires achievement of Statewide GHG emissions of 40 percent below 1990 levels by 2030. AB 1279 sets a goal to achieve net zero Statewide GHG emissions as soon as possible, but no later than 2045. Statewide plans and regulations such as GHG emissions standards for vehicles, the Low Carbon Fuel Standard, and regulations requiring an increasing fraction of electricity to be generated from renewable sources are being implemented at the Statewide level; as such, compliance at the project level is not addressed. Therefore, the proposed project would not conflict with those plans and regulations.

The proposed project would replace, rehabilitate, and improve the existing dam infrastructure at the Willow Hill Reservoir. Staff that currently maintain the dam and Willow Hill Reservoir, typically two City staff at a given time, would perform the maintenance tasks required for the proposed project Staff that currently maintain the dam and Willow Hill Reservoir, typically two City staff at a given time, would perform the maintenance tasks required for the proposed project and would require only occasional, "as-needed" maintenance trips. Therefore, no new vehicle miles traveled (VMT) would be generated from the proposed project. In addition to regional VMT projections, CARB and Sacramento Area Council of Governments (SACOG) utilize local growth projections to develop the strategies and measures in the 2022 Scoping Plan and 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS). The proposed project would rehabilitate and improve the existing dam infrastructure at the Willow Hill Reservoir and would therefore not result in population growth. As a result, the project would not conflict with SACOG's 2020 MTP/SCS and CARB's 2022 Scoping Plan, and the impact would be less than significant.

IX. HAZARDS AND HAZARDOUS MATERIALS

		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:					
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 handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
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?	☐	☐	☒	☐

Environmental Setting

The proposed project is located in the City of Folsom. The nearest school to the project site is Folsom High School, located immediately west of the proposed project. The nearest public airport is the Cameron Airpark, located approximately 9.5 miles east of the project site.

The following databases were reviewed for the project site and surrounding area to identify potential hazardous contamination sites: the State Water Resources Control Board's GeoTracker tool (SWRCB 2025), California Department of Toxic Substance Control's (DTSC) EnviroStor online tool (DTSC 2025); and the USEPA's Superfund National Priorities List (USEPA 2025). Based on the results of the databases reviewed, no hazardous waste sites are on the proposed project site.

Federal and State laws include provisions for the safe handling of hazardous substances. The federal Occupational Safety and Health Administration (OSHA) administers requirements to ensure worker safety. Construction activity must also be in compliance with the California OSHA regulations (Occupational Safety and Health Act of 1970).

Impact Analysis

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

Less than Significant Impact. The proposed project would not result in a significant hazard related to the transport, use, or disposal of hazardous materials. The proposed project would replace and improve the existing dam infrastructure at the Willow Hill Reservoir. Construction activities may involve the limited transport, storage, use, and/or disposal of hazardous materials, such as for the fueling and servicing of construction equipment on-site. These activities would be short-term or one-time in nature and would be subject to federal, State, and local health and safety regulations, which would minimize hazards related to the use of these materials. Long-term operation of the proposed project would not involve the use or permanent storage of hazardous materials. Therefore, the impact would be less than significant, and no mitigation would be necessary.

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

Less than Significant Impact. As discussed above in question a), limited amounts of hazardous materials would be used during construction; however, these materials would be used and stored in accordance with applicable regulations that would limit the potential for their accidental release. As the proposed project would replace and improve the existing dam infrastructure at the Willow Hill Reservoir and would not involve the use of hazardous materials, there are no reasonably foreseeable upset or accident conditions that would result in the release of hazardous materials into the environment. Therefore, the impact would be less than significant, and no mitigation would be necessary.

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

Less than Significant Impact. The nearest school to the project site is Folsom High School, located adjacent to the west of the project site. As previously discussed under question a) and b), construction activities may involve the limited transport, storage, use, and/or disposal of hazardous materials, such as for the fueling and servicing of construction equipment on-site. These activities would be short-term or one-time in nature and would be subject to federal, State, and local health and safety regulations, which would minimize hazards related to the use of these materials. Long-term operation of the proposed project would involve little or no hazardous materials since the proposed project would involve periodic operation of the dam operator infrastructure and would not emit hazardous materials. Therefore, the impact would be less than significant, and no mitigation would be necessary.

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

No Impact. As noted above, the following databases were reviewed for the project site and surrounding area to identify potential hazardous contamination sites: the SWRCB GeoTracker tool (SWRCB 2025), DTSC EnviroStor online tool (DTSC 2025); and the USEPA's Superfund National Priorities List (USEPA 2025). Based on the results of the databases reviewed, no hazardous waste sites are on the proposed project site. Therefore, the proposed project would not create a significant hazard to the public or the environment and no impact would occur. No mitigation would be necessary.

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

No Impact. The proposed project is not located within an airport land use plan and is not located within two miles of a public airport or public use airport. The nearest public airport is the Cameron Airpark, located approximately 9.5 miles east of the project site. Therefore, the proposed project would not result in a safety hazard or excessive noise for people residing or working in the project area and no impact would occur. No mitigation would be necessary.

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

Less than Significant Impact. The City of Folsom maintains pre-designated emergency evacuation routes as identified in the *City of Folsom Evacuation Plan* (City 2020a). The proposed project is located in evacuation plan area #31-Willow Hill/Folsom Gateway, which identifies Prairie City Road as a major evacuation route, and Iron Point Road as a minor evacuation route. Additionally, Folsom High School is identified as a critical facility and evacuation center. During construction, vehicles and large construction equipment would utilize the local roads to access the site; however, no public roadway or lane closures are expected during construction. During operation of the project, no component of the proposed project would modify any pre-designated emergency evacuation route or preclude their continued use as an emergency evacuation route. Therefore, the impact would be less than significant, and no mitigation would be necessary.

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

Less than Significant Impact. The proposed project would replace and improve the existing dam infrastructure at the Willow Hill Reservoir. As discussed in Section 9.XX, Wildfire, according to the California Department of Fire and Forestry's (CAL FIRE's) Fire Hazard Severity Zone Map, the project site is located within a Local Responsibility Area and is not located within a Very High Fire Hazard Severity Zone. Additionally, the project site is not located within or near a State Responsibility Area (CAL FIRE 2024). Therefore, the proposed project would not expose people or structures to significant risk, and the impact would be less than significant. No mitigation would be necessary.

X. HYDROLOGY AND WATER QUALITY

		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:					
a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water 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 on- or off-site?	☐	☐	☒	☐
	ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off- site?	☐	☐	☒	☐
	iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional resources 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?	☐	☐	☒	☐

Environmental Setting

The primary waterway within the City of Folsom is the Lower American River. The American River watershed covers approximately 2,100 square miles northeast of Sacramento, spanning portions of Sacramento, El Dorado, and Placer counties. The American River watershed, including all its tributaries, is divided into three major subbasins, the North Fork American River, the South Fork American River and the Lower Fork American River. The Lower Fork American River subbasin begins at Folsom Dam and extends 30 miles downstream to the mouth of the American River at its confluence with the Sacramento River (City 2018).

The City of Folsom city limits include a portion of Folsom Lake. The lake, created by the construction of Folsom Dam in 1955, is operated by the U.S. Bureau of Reclamation (USBR) to meet a variety of uses,

including flood management, water supply, water quality, power generation, recreation, and fish and wildlife habitat. The lake has a storage capacity of 977,000 acre feet and serves as the principal water source for the City of Folsom, through a contract with USBR (City 2018).

The City of Folsom is not located in an area of important groundwater recharge. It is situated in an area dominated by bedrock formations of the Sierra Nevada foothill complex, where groundwater is found primarily in fractured geologic formations. Domestic water in the City is provided solely from surface water sources. Two groundwater subbasins of the Sacramento Valley Groundwater Basin underlie the City of Folsom, the North American Subbasin and the South American River Subbasin (City 2018).

Federal Emergency Management Agency (FEMA) flood insurance rate maps were reviewed for the project's proximity to a 100-year floodplain. The proposed project is located on FEMA panel 06067C0119J, effective February 22, 2024. The Willow Hill Reservoir and immediate surrounding land area is mapped as Zone A, which represents a 100-year floodplain (FEMA 2025).

Regulatory Setting

Section 404 of the CWA establishes a permit program administered by USACE that regulates the discharge of dredged or fill material into waters of the U.S. (including wetlands). Implementing regulations by USACE are found at 33 CFR Parts 320-332. The Section 404 (b)(1) Guidelines were developed by the USEPA in conjunction with USACE (40 CFR Part 230), allowing the discharge of dredged or fill material for non-water dependent uses into special aquatic sites only if there were no practicable alternative that would have less adverse impacts.

Any action requiring a CWA Section 404 permit, or a Rivers and Harbors Act Section 10 permit, must also obtain a CWA Section 401 Water Quality Certification. The State of California Water Quality Certification (WQC) Program was formally initiated by the State Water Resources Control Board (SWRCB) in 1990 under the requirements stipulated by Section 401 of the CWA. Although the CWA is a federal law, Section 401 of the CWA recognizes that states have the primary authority and responsibility for setting water quality standards. In California, under Section 401, the State and Regional Water Boards are the authorities that certify that the issuance of a federal license or permit does not violate California's water quality standards (i.e., that they do not violate Porter-Cologne and the Water Code). The WQC Program currently issues the WQC for discharges requiring USACE's permits for fill and dredge discharges within waters of the U.S. and now also implements the State's wetland protection and hydromodification regulation program under the Porter-Cologne Water Quality Control Act.

Under the Procedures and the State Water Code (Water Code §13050[e]), "waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the State." Unless excluded by the Procedures, any activity that could result in discharge of dredged or fill material to waters of the State, which includes waters of the U.S. and non-federal waters of the State, requires filing of an application under the Procedures.

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act, Water Code Section 13000 *et seq*.) is California's statutory authority for the protection of water quality in conjunction with the federal CWA. The Porter-Cologne Act requires the SWRCB and RWQCBs under CWA to adopt and periodically update water quality control plans or basin plans. Basin plans are plans in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California. The Porter-Cologne Act also requires dischargers of pollutants or dredged or fill material to notify the

RWQCBs of such activities by filing Reports of Waste Discharge and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements, National Pollution Discharge Elimination System (NPDES) permits, CWA Section 401 water quality certifications, or other approvals.

The City is a signatory to the Sacramento Countywide NPDES permit for the control of pollutants in urban stormwater. Since 1990, the City has been a partner in the Sacramento Stormwater Quality Partnership, along with the County of Sacramento and the Cities of Sacramento, Citrus Heights, Elk Grove, Galt, and Rancho Cordova. These agencies are implementing a comprehensive program involving public outreach, construction and industrial controls (i.e., BMP, water quality monitoring, and other activities designed to protect area creeks and rivers). The project would be required to implement all appropriate program requirements.

The City's *Design and Procedures Manual and Improvement Standards* maintains standard construction specifications and details to reduce the potential impacts of urban development on stormwater quality and quantity, erosion and sediment control, flood protection, and water use (City 2020b).

Standard construction conditions required by the City include:

- Water Pollution – requires compliance with City water pollution regulations, including NPDES provisions.

- Clearing and Grubbing – specifies protection standards for signs, mailboxes, underground structures, drainage facilities, sprinklers and lights, trees and shrubbery, and fencing. Also requires the preparation of a SWPPP to control erosion and siltation of receiving waters.

- Reseeding – specifies seed mixes and methods for reseeding graded areas.

Additionally, the City enforces the following requirements of the Folsom Municipal Code as presented in Table 12, *City of Folsom Municipal Code Sections Regulating the Effects on Hydrology and Water Quality from Urban Development*.

Table 12: CITY OF FOLSOM MUNICIPAL CODE SECTIONS REGULATING THE EFFECTS ON HYDROLOGY AND WATER QUALITY FROM URBAN DEVELOPMENT

Code Section	Code Name	Effect of Code
8.70	Stormwater Management and Discharge Control	Establishes conditions and requirements for the discharge of urban pollutants and sediments to the storm-drainage system; requires preparation and implementation of Stormwater Pollution Prevention Plans.
14.29	Grading Code	Requires a grading permit prior to the initiation of any grading, excavation, fill or dredging; establishes standards, conditions, and requirements for grading, erosion control, stormwater drainage, and revegetation
14.32	Flood Damage Prevention	Restricts or prohibits uses that cause water or erosion hazards, or that result in damaging increases in erosion or in flood heights; requires that uses vulnerable to floods be protected against flood damage; controls the modification of floodways; regulates activities that may increase flood damage or that could divert floodwaters.

Source: City 2025.

Impact Analysis

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less than Significant Impact. Prior to construction of the proposed project, the northern inlet to the Willow Hill Reservoir would be temporarily shut off to lower the water elevation of the reservoir via evaporation. Following installation of the temporary coffer dam, the construction area would then be entirely dewatered to allow for "construction in the dry." Project construction would be subject to all of the City's standard code requirements, including conditions for the discharge of urban pollutants and sediments to the storm-drainage system, and restrictions on uses that cause water or erosion hazards.

The proposed project would require the City to obtain Section 404 authorization from the USACE and a Section 401 WQC from the CVRWQCB prior to the start of construction. Adherence to the requirements of the 401 Water Quality Certification and/or WDR would ensure any accidental release of chemicals, watering for dust control, and alterations to existing jurisdictional drainages do not violate water quality standards, waste discharge requirements, or otherwise substantially degrade surface or ground water quality. As construction and temporary dewatering of the Willow Hill Reservoir would involve ground disturbance to more than one acre of soil, the City would be required to obtain coverage for the project under the Construction Stormwater General Permit from the CVRWQCB and comply with all conditions of the permit. The project would also be required to implement an approved SWPPP, which would include BMPs for erosion and sediment control including, but not limited to, check dams, fiber rolls, sandbags, and siltation fences. Compliance with various federal, State, and local water quality standards would ensure that construction of the proposed project would not violate water quality standards or waste discharge permits, or otherwise substantially degrade water quality.

Following construction, the temporary coffer dam would be removed, and the northern inlet would be turned on to allow the reservoir to return to pre-construction conditions. Operation of the proposed project would involve exercising the upstream slide gate valve approximately twice per year. Occasional maintenance activities would involve periodic testing of the valve as well as general maintenance to the valve operator infrastructure as needed. Impacts related to water quality or waste discharge are not anticipated for post-construction operation or maintenance of the dam. Therefore, impacts related to water quality standards, waste discharge requirements, or surface or ground water quality would be less than significant, and no mitigation would be necessary.

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

Less than Significant Impact. Implementation of the proposed project would not result in the use of groundwater because domestic water in the City is provided solely from surface water sources. While the proposed project would result in the construction of small areas of impervious surfaces, primarily from the concrete landing and reinforced concrete grade beam, which could affect groundwater recharge, the site is not known to be important to groundwater recharge. Further, because the proposed project would not rely on groundwater for domestic water or irrigation purposes, and because the site is not an important area of groundwater recharge, implementation of the proposed project would not deplete groundwater supplies or interfere substantially with groundwater recharge that would result in a net deficit in aquifer volume or a lowering of the local groundwater table. Therefore, the impact would be less than significant, and no mitigation would be necessary.

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 on- or off-site?

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off- site?

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional resources of polluted runoff?

Less than Significant Impact. Currently, overflow from the reservoir is discharged through the rip rap-lined spillway located immediately east of the existing dam, which drains to the Rebel Hill Ditch. The Willow Hill Reservoir is fed by an inlet valve that receives raw water from Folsom Lake, which would be temporarily shut off prior to construction to allow for partial dewatering of the reservoir through evaporation. Construction of the proposed project, including staging of construction equipment and partial dewatering of the Willow Hill Reservoir, would result in temporary ground disturbance that could result in erosion or siltation on site. However, as discussed in question a) above, the project would be required to implement an approved SWPPP, which would include BMPs for erosion and sediment control including, but not limited to, check dams, fiber rolls, sandbags, and siltation fences. The proposed project would also require the City to obtain CWA Sections 401 and 404 permits/authorizations issued by the CVRWQCB and USACE, respectively. Compliance with the construction SWPPP and implementation of the CWA Sections 401 and 404 permits would reduce construction-related impacts to less than significant.

Implementation of the proposed project would introduce small areas of impervious surfaces, primarily from the concrete landing and reinforced concrete grade beam, which would increase the amount of surface runoff. However, due to the small area of impervious surfaces, and because surface runoff would primarily flow into the reservoir, similar to existing conditions, the proposed project would not substantially increase the rate or amount of surface water, nor would surface runoff generated by the proposed project exceed the capacity of the stormwater drainage systems. Therefore, the impact would be less than significant, and no mitigation would be necessary for question c).

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

Less than Significant Impact. The City of Folsom is located approximately 95 miles from the Pacific Ocean. Therefore, there would be no possibility of inundation by tsunami. The City is located adjacent to Folsom Lake, a reservoir of the American River impounded by a main dam on the river channel and wing dikes. Areas of the City adjacent to the wing dikes could be adversely affected by a seiche as a result of an earthquake, either through sloshing within a full reservoir or by a massive landslide or earth movement into the lake. Although historic seismic activity in the City has been minor, the potential for strong ground shaking is present and the possibility exists of a strong earthquake occurring when lake levels are high. Although unlikely, this could create a large enough wave to overtop or breach the wing dikes.

The Willow Hill Reservoir and immediate surrounding land area is mapped as Flood Zone A, which represents an area with a 1 percent change of annual flooding. However, the purpose of the proposed project is to replace, rehabilitate, and improve the dam infrastructure to extend the serviceable life of

the dam, which would thereby reduce the risk of flooding of the Willow Hill Reservoir. Further, as discussed in Section 9.IX, Hazards and Hazardous Materials, construction activities may involve the limited transport, storage, use, and/or disposal of hazardous materials, such as for the fueling and servicing of construction equipment on-site. These activities would be short-term or one-time in nature and would be subject to federal, State, and local health and safety regulations, which would minimize hazards related to the use of these materials. As discussed in question a) above, the project would be required to implement an approved SWPPP, which would require measures such as preventing the storage of excess materials such as oil, petroleum products, and fuel from being deposited near surface water bodies or drainages. Once constructed, the project would not contain any pollutants that could be released in the event of site flooding. For these reasons, there would be no potentially significant impact from inundation by seiche, tsunami, or mudflow. The impact would be less than significant.

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

Less than Significant Impact. The proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. As discussed in question a) above, the project would require preparation of a SWPPP and obtaining CWA Sections 401 and 404 permits/authorizations issued by the RWQCB and USACE, respectively. Compliance with these requirements would ensure that the proposed project would comply with all water quality control plan requirements. As discussed in question b), the proposed project would not affect groundwater recharge or management. Therefore, the impact related to conflicting with or obstructing implementation of a water quality control plan or sustainable groundwater management plan would be less than significant.

XI. LAND USE AND PLANNING

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

Environmental Setting

The proposed project is located within the City of Folsom. The City regulates land use through the various plans and ordinances adopted by the City, including the City of Folsom General Plan and the City of Folsom Municipal Code and Zoning Code.

The General Plan is a long-term planning document that directs appropriate land uses for all land parcels within the City. Under the General Plan, Parcel 1 is designated Parks (P), Parcel 2 is designated Public and Quasi-Public Facility (PQP), and Parcel 3 is designated Regional Commercial Center (RCC).

Developed land uses in the City of Folsom are regulated specifically by the City's Zoning Code (Title 17 of the Folsom Municipal Code), in addition to the other adopted regulations and programs that apply to all proposed development within the City. In more detail than the General Plan, the Zoning Code regulates land uses on a parcel-by-parcel basis throughout the City. Regulations for each district apply equally to all properties within the district. Parcel 1 is zoned Open Space and Conservation District (OSC); Parcel 2 is zoned General Commercial, Planned Development District (C-3 PD); and Parcel 3 is zoned General Apartment, Planned Development District (R-4 PD).

Impact Analysis

a) Physically divide an established community?

No Impact. The project site is located within the Willow Hill Reservoir Community Park and is bordered by the Folsom High School campus, residential development, open space, Prairie City Road, and U.S. 50. The proposed project would replace and improve the existing dam infrastructure at the Willow Hill Reservoir. The proposed project would not physically divide an established community. Therefore, no impact would occur, and no mitigation would be necessary.

b) Cause significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. As discussed in question a) above, the proposed project would replace and improve the existing dam infrastructure at the Willow Hill Reservoir and would not require changes to the existing zoning or General Plan land use designation. The proposed project would not conflict with any land use

plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, no impact would occur, and no mitigation would be necessary.

XII. MINERAL RESOURCES

		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:					
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Environmental Setting

The State of California, under the Surface Mining and Reclamation Act (SMARA) act of 1975, can designate certain areas as having mineral deposits of regional significance. SMARA was enacted in response to land use conflicts between urban growth and essential mineral production. It requires the California Geological Survey (CGS) to classify California lands into mineral resource zones (MRZ), defined as follows:

- MRZ-1: areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence.
- MRZ-2: areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists.
- MRZ-3: areas containing mineral deposits, the significance of which cannot be evaluated from available data.
- MRZ-4: areas where available information is inadequate for assignment into any other MRZ.

Urbanized areas and public parks are typically excluded from this determination, effectively removing almost the entire area north of U.S. 50 from consideration for mineral resources. Much of the area of the City south of U.S. 50, however, is designated under SMARA as having some minerals of regional or Statewide value. The western edge of the Folsom Plan Area Specific Plan (FPASP) area is designated as MRZ-3 for kaolin clay. It is currently unknown whether or not an economically valuable deposit of kaolin clay is present (City 2018).

There are no designated mineral resource extraction sites within the City limits. The nearest mining operations include five sites located south of White Rock Road, ranging from approximately 3.5 miles to 6.8 miles south of the project site (DOC 2024d).

Impact Analysis

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?

No Impact. The proposed project is not located in a zone of known mineral or aggregate resources. Additionally, there are no designated mineral resource extraction sites within the City limits or in the project vicinity. Implementation of the project would not interfere with the extraction of any known mineral resources. Therefore, no impact would occur, and no mitigation would be necessary.

XIII. NOISE

		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project result in:					
a)	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b)	Generation of excessive groundborne vibration or groundborne 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 two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Environmental Setting

Existing Ambient Noise

The existing noise environment in the vicinity of the project site is dominated by vehicular traffic on U.S. 50, approximately 0.25 mile south of the project site, and Prairie City Road, approximately 600 feet west of the project site; use of the Prairie City Stadium and other Folsom High School facilities; and other ambient urban noise sources (e.g., parking lots; heating, ventilation and air conditioning [HVAC] systems). No airports are located within two miles of the project site, though occasional overflights and associated noise could occur from aircrafts landing and departing from the Cameron Airpark, approximately 9.5 miles northeast of the project site, and Mather Airport, approximately 10 miles southwest of the project site.

Noise Sensitive Land Uses

Noise-sensitive land uses (NSLU) are land uses that may be subject to stress and/or interference from excessive noise, including residences, hospitals, schools, hotels, resorts, libraries, sensitive wildlife habitat, or similar facilities where quiet is an important attribute of the environment. Noise receptors (receivers) are individual locations that may be affected by noise. NSLUs in the project vicinity include residential development adjacent to the north, east, and south of the project site and Folsom High School to the west of the project site.

Noise Metrics

All noise-level and sound-level values presented herein are expressed in terms of decibels (dB), with A weighting, abbreviated "dBA," to approximate the hearing sensitivity of humans. Time averaged noise levels of one hour are expressed by the symbol "L_{EQ}" unless a different time period is specified. The

Community Noise Equivalent Level (CNEL) is a 24-hour average, where noise levels during the evening hours of 7:00 p.m. to 10:00 p.m. have an added 5 dBA weighting, and sound levels during the nighttime hours of 10:00 p.m. to 7:00 a.m. have an added 10 dBA weighting. This is similar to the Day Night sound level (L_{DN}), which is a 24-hour average with an added 10 dBA weighting on the same nighttime hours but no added weighting on the evening hours.

Because decibels are logarithmic units, noise levels cannot be added or subtracted through standard arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3 dBA increase. In other words, when two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dBA higher than from one source under the same conditions. For example, if one automobile produces a sound pressure level (S_{PL}) of 70 dBA when it passes an observer, two cars passing simultaneously would not produce 140 dBA—rather, they would combine to produce 73 dBA. Under the decibel scale, three sources of equal loudness together produce a sound level 5 dBA louder than one source.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1 dBA changes in sound levels, when exposed to steady, single-frequency ("pure-tone") signals in the mid-frequency (1,000 Hertz [Hz]–8,000 Hz) range. In typical noisy environments, changes in noise of 1 to 2 dBA are generally not perceptible. It is widely accepted, however, that people begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5 dBA increase is generally perceived as a distinctly noticeable increase, and a 10 dBA increase is generally perceived as a doubling of loudness.

Vibration Metrics

Groundborne vibration consists of rapidly fluctuating motions or waves transmitted through the ground with an average motion of zero. Sources of groundborne vibrations include natural phenomena and anthropogenic causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions). Peak particle velocity (PPV) is commonly used to quantify vibration amplitude. The PPV, with units of inches per second (in/sec), is defined as the maximum instantaneous positive or negative peak of the vibration wave. Decibels are also used compress the range of numbers required to describe vibration. Vibration velocity level (L_V) with units of VdB are commonly used to describe vibrations from transit sources.

Regulatory Setting

The Noise Control ordinance, Section 8.42 of the Folsom Municipal Code, regulates individual noise events and specifics noise measurement criteria, allowable exterior and interior noise standards, noise source exemptions and special situations, and penalties for violation. In accordance with Section 8.42.060 of the Folsom Municipal Code, noise from project construction activity would be considered significant for construction occurring before 7:00 a.m. or after 6:00 p.m. on weekdays, or before 8:00 a.m. or after 5:00 p.m. on Saturday or Sunday.

The City's General Plan Safety and Noise Element establishes a land use noise compatibility standard of 70 CNEL for playgrounds and neighborhood parks. Consistent with Section 8.42, of the Folsom Municipal Code, the Safety and Noise Element also established noise level standards from stationary sources. Section 8.42 of the Folsom Municipal Code establishes hourly noise level performance standards that are most commonly quantified in terms of the one-hour average noise level (L_{EQ}). Using the limits

specified in Table 8.42.040 of the Noise Ordinance, noise levels generated during project operation would be significant if they exceeded 50 dBA L_{EQ} from 7 a.m. to 10 p.m. and 45 dBA L_{EQ} from 10 p.m. to 7 a.m., measured at NSLU property boundaries.

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. The proposed project would replace and improve the existing dam infrastructure at the Willow Hill Reservoir. The project would replace the upstream slide gate valve structure; demolish the existing isolation valve and replace the exposed outlet pipe and downstream valve stem; install a raised landing and gate operator infrastructure at the top of the dam; and place rip rap and armoring on the upstream face of the dam.

Construction Noise

Construction of the project would generate elevated noise levels. The magnitude of the impact would depend on the type of construction activity, equipment, duration of activity, distance between the noise source and receiver, and any intervening structures. Construction of the proposed project is anticipated to require a crane, an excavator, backhoes, a concrete truck, a dump truck, and a flatbed truck. Construction noise would be regulated by Section 8.4.2.060, Noise Ordinance, of the Folsom Municipal Code, which states that construction activities are exempt from noise standards if they take place during daytime hours between 7 a.m. and 6 p.m. on weekdays and between 8 a.m. and 5 p.m. on Saturdays, with construction activities on Sunday or public holidays (City 2025). Project construction would only occur during these exempted hours. In addition, project construction work would be temporary and short-term; construction would last a total of approximately six months, including approximately three months to lower the elevation of the reservoir and approximately three months for project construction. Therefore, construction of the project would not result in the generation of a substantial temporary in ambient noise levels in the vicinity of the project in excess of standards established in City noise ordinance. The impact would be less than significant, and no mitigation would be necessary.

Operational Noise

Standard operation activities would be limited to maintenance activities that would be similar to current maintenance activities associated with the existing Willow Hill Dam and would not result in new noise sources or increases in ambient noise levels. Project operation would be periodic in nature and would not result in a substantial permanent increase in ambient noise levels in the vicinity of the project in project in excess of standards established in the City General Plan or noise ordinance. The impact would be less than significant, and no mitigation would be necessary.

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

Less than Significant Impact. Construction of the project would not include equipment or methods known to result in substantial groundborne vibrations such as pile driving, blasting, or the use of large vibratory rollers. Once operational, the project would not be a source of groundborne vibrations. Therefore, the project would not result in the generation of excessive groundborne vibration or

groundborne noise levels. The impact would be less than significant, and no mitigation would be necessary.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less than Significant Impact. The closest airports to the project site are the Cameron Airpark, approximately 9.5 miles northeast of the project site, and Mather Airport, approximately 10 miles southwest of the project site. The project site is located within the review area identified in the Mather Airport Land Use Compatibility Plan. The project site is beneath the approach paths for runways 22 Left and 22 Right; however, the project site is not with the 60 dBA noise contour for the airport (SACOG 2022). Therefore, although the project site is subject to overflight by aircraft approaching and departing Mather Airport, the people working in the project area would not be exposed to excessive levels of noise due to aircraft or airport operations. The impact would be less than significant, and no mitigation would be necessary.

XIV. POPULATION AND HOUSING

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

Environmental Setting

The City of Folsom's estimated population in 2023 was 84,782 people (U.S. Census Bureau 2023). The population is projected to increase to approximately 97,485 by 2035 (City 2018).

Impact Analysis

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

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

No Impact. The proposed project would not induce unplanned population growth or displace substantial numbers of existing people or housing, necessitating the construction of replacement housing. The proposed project involves infrastructural improvements to the existing dam at the Willow Hill Reservoir to extend the serviceable life of the dam. Construction of the proposed project is expected to continue for approximately six months and would draw from the City's existing labor pool. The presence of construction workers at the project site would be temporary and would not require workers to relocate their households. Occasional operation and maintenance activities of the proposed project would involve existing City staff and would not generate an increase in employment that would increase the City population. Additionally, construction and operation of the proposed project would not displace any people or housing. Therefore, no impact would occur, and no mitigation would be necessary.

XV. PUBLIC SERVICES

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

Environmental Setting

The proposed project is located within the Willow Hill Reservoir Community Park and is surrounded by land uses that are currently served by urban levels of public services. Public services provided by the City of Folsom in the project area include fire, police, school, park, and library services.

The City of Folsom Fire Department (FFD) provides fire protection and emergency medical services to the project area. There are six stations within the City of Folsom. Station 37 is nearest to the project site; it is located at 70 Clarksville Road, approximately 1.5 miles east of the project site.

The City of Folsom Police (FPD) Department is located at 46 Natoma Street, approximately 2.8 miles north of the project site.

The project site is located within the Folsom Cordova Unified School District and is within the attendance area for Gold Ridge Elementary School, located approximately 1.3 miles east of the project site; Natoma Station Elementary School, located approximately 1.3 miles west of the project site; and Folsom High School, located adjacent to the project site.

The City of Folsom has a program of maintaining and upgrading existing public services within the City, including the Parks and Recreation Master Plan, which was most recently updated in 2015. The Parks and Recreation Master Plan is a living document that identifies community-wide parks and recreation needs and provides new park development programming. The City of Folsom Parks and Recreation Department maintains 48 parks and over 50 miles of paved recreational trails. The project site is located within the Willow Hill Reservoir Community Park. Other parks near the project site include Mann Family Park, Amos P. Caitlin Park, Livermore Community, John Kemp Community Park, and Natoma Station/Ernie Sheldon Park. The project site encompasses the Willow Hill Reservoir Community Park, which provides recreational opportunities such as fishing, kayaking, and pedestrian trails.

Impact Analysis

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

a) Fire protection?

b) Police protection?

Less than Significant Impact. The proposed project would not result in substantial adverse physical impacts to any fire or police protection services. The project site receives fire and police protection services from the City of Folsom Fire Department and City of Folsom Police Department. As discussed in Section 9.XIV, Population and Housing, the proposed dam improvements would not generate population growth in the City. However, there may be potential for a minimal increase in fire or police protection during the six-month construction period due to increased construction personnel and risk for accidents on site. These potential public service demands would be temporary and would be served by the existing staff of the FFD and FPD. Ongoing operation and maintenance of the proposed project is not expected to require fire or police protection services. Construction and operation of the proposed project would not alter acceptable service ratios or response times. Therefore, impacts related to fire and police protection would be less than significant, and no mitigation would be necessary.

c) Schools?

No Impact. The proposed project would not result in adverse physical impacts to schools. The project site is served by the Folsom Cordova School District and is in the attendance area for Gold Ridge Elementary School, Natoma Station Elementary School, and Folsom High School. As discussed in Section 9.XIV, Population and Housing, the proposed dam improvements would not directly or indirectly generate population growth in the City. Additionally, the proposed project would not develop any structures that may impact school capacities. No impact would occur, and no mitigation would be necessary.

d) Parks?

Less than Significant Impact. The proposed project would not result in substantial adverse physical impacts to any parks. The need for new or expanded park facilities is typically associated with a permanent population increase that generates the need for new or expanded park facilities. The proposed project involves infrastructural improvements to the existing dam at the Willow Hill Reservoir to extend the serviceable life of the dam. As discussed in Section 9.XIV, Population and Housing, the proposed dam improvements would not generate population growth in the City. However, the project site includes existing paved, gravel, and dirt trails and areas of open space within the Willow Hill Reservoir Community Park. Temporary closure of portions of the park would be required during construction of the proposed project, which may result in temporarily reduced operational capacity of the Willow Hill Reservoir Community Park. However, this minor reduction of park capacity would be temporary and short term. Following project construction, the park would resume typical levels of operation. The impact would be less than significant, and no mitigation would be necessary.

e) Other public facilities?

No Impact. The need for new or expanded public facilities (libraries, etc.) is typically associated with a permanent population increase that generates the need for new or expanded public facilities to be constructed. As discussed in Section 9.XIV, Population and Housing, the proposed dam improvements would not generate population growth in the City. Therefore, no impacts related to the need for other new or expanded public facilities would occur, and no mitigation would be necessary.

XVI. RECREATION

		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:					
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)	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

Environmental Setting

As discussed in Section 9.XVI, Public Services, the City of Folsom has a program of maintaining and upgrading existing public services within the City, including the Parks and Recreation Master Plan, which was most recently updated in 2015. The Parks and Recreation Master Plan is a living document that identifies community-wide parks and recreation needs and provides new park development programming. The City of Folsom Parks and Recreation Department maintains 48 parks and over 50 miles of paved recreational trails.

The project site is located within the Willow Hill Reservoir Community Park, which provides recreational opportunities such as fishing, kayaking, and pedestrian trails. Other parks near the project site include Mann Family Park, Amos P. Caitlin Park, Livermore Community, John Kemp Community Park, and Ernie Sheldon Park.

Impact Analysis

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

Less than Significant Impact. The proposed project would not increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur. Additionally, the project would not include new recreational facilities or require the construction or expansion of recreational facilities. The need for new or expanded park facilities is typically associated with a substantial permanent population increase that results in an increased demand on park facilities. As discussed in Section 9.XIV, Population and Housing, the proposed dam improvements would not generate population growth in the City. However, the project site includes existing paved, gravel, and dirt trails and areas of open space within the Willow Hill Reservoir Community Park. As discussed in question d) of Section 9.XV, Public Services, temporary closure of

portions of the park would be required during construction of the proposed project, which may result in a temporarily reduced operational capacity of the park. However, this minor reduction of park capacity would be temporary and short term. Following project construction, the park would resume typical levels of operation. Therefore, the impact on parks would be less than significant, and no mitigation would be necessary.

XVII. TRANSPORTATION

		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:					
a)	Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b)	Would the project 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?	☐	☐	☒	☐

Environmental Setting

The following roadways provide primary circulation within the vicinity of the proposed project:

- **Iron Point Road** is an east-west arterial roadway with a raised median that runs from Folsom Boulevard to the eastern city limit along the north side of U.S. 50. Within the vicinity of the project site, Iron Point Road has six lanes, bike lanes, sidewalk, curb, and gutter. The posted speed limit is 45 miles per hour (mph). Turn pockets are provided at intersections.

- **Barnhill Drive** is a north-south residential road that begins at Iron Point Road and dead ends. Barnhill Drive is an unstriped road with sidewalks. The posted speed limit is 25 mph.

- **Blossom Rock Lane** is a north-south residential road that begins at Iron Point Road and dead ends; Blossom Rock Lane runs approximately parallel to Barnhill Drive. Blossom Rock lane is an unstriped road with sidewalks. The posted speed limit is 25 mph.

- **Prairie City Road** is a north-south arterial that extends from Blue Ravine Road to White Rock Road; north of Blue Ravine Road it is called Sibley Street. Within the vicinity of the project site, Prairie City Road is a six-lane urban arterial road between Iron Point Road and U.S. 50, and has bike lanes, sidewalk, curb, and gutter. The posted speed limit is 25 mph within the vicinity of the project site and Folsom High School. Turn pockets are provided at intersections.

Trails in the City provide access to regional recreational opportunities from Folsom Lake, neighborhood parks to wildlife observation and boating along the American River. Multi-use paths are an important component of the City's pedestrian network. Trails are often also categorized as Class I bicycle facilities. The 2035 General Plan EIR identifies a 1.1-mile segment of walking paths within the Willow Hill Reservoir Community Park as a Class I Bike Path (City 2018).

The City's 2007 Bikeway Master Plan provides the following descriptions of bikeways (City 2007):

- **Class I Bike Path:** A bikeway physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right-of-way or within an independent right-of-way.

- **Class II Bike Lane:** Any portion of roadway designated for bicycle use and defined by pavement marking, curbs, signs, or other traffic-control devices.

- **Class III Bike Route:** A designated route through high demand corridors on existing streets that are usually shared with motor vehicles. Are indicated by periodic signs and do not require pavement markings.

- **Class IV bikeways:** A bikeway or "cycle track" for exclusive use of bicycles and includes a separation between the bikeway and through traffic lanes. The separation may include, but is not limited to, grade separation, flexible posts, inflexible posts, inflexible barriers, or on-street parking.

Public transit service in the City is primarily provided by the Folsom Stage Line and light rail service. Folsom Stage Line Route 10 provides service between the intersection of Main Street and Madison Avenue, and the Iron Point Road light-rail station. Weekday service is provided between 5:30 a.m. and 7:00 p.m. on 60-minute headway. Folsom Stage Line runs two additional bus routes during peak periods. Route 20 provides service in eastern Folsom between Folsom Lake College and Vista Del Largo High School. Weekday service on this route is one bus provided in the morning and one in the afternoon. Route 30 provides service between Glenn Station and Folsom Prison. Weekday service on this route is provided from 6:00 a.m. to 8:00 a.m. and from 2:30 p.m. to 5:00 p.m. Sacramento Regional Transit operates bus and light-rail transit service in Sacramento County (City 2018).

Impact Analysis

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

Less than Significant Impact. The proposed project would replace and improve the existing dam infrastructure at the Willow Hill Reservoir. The project site includes existing paved, gravel, and dirt trails and areas of open space within the Willow Hill Reservoir Community Park, including a 1.1-mile segment of a Class I Bike Path. Temporary closure of portions of the Willow Hill Reservoir Community Park would be required during construction of the proposed project, which may result in temporary closure of bicycle and pedestrian facilities. However, this effect would be temporary in nature and would not substantially interfere with local circulation patterns. Following construction, pedestrian and bicycle facilities within the park would return to pre-project conditions.

Operation of the proposed project would involve the continued operation of the existing dam infrastructure, which is expected to be operated approximately twice per year. Operation and maintenance activities associated with the proposed project would not interfere with existing park facilities or existing pedestrian and bicycle pathways located throughout the park. For these reasons, implementation of the project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities. Therefore, the impact would be less than significant, and no mitigation would be necessary.

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

Less than Significant Impact. Senate Bill (SB) 743, passed in 2013, required the Governor's Office of Land Use and Climate Innovation (LCI), to develop new CEQA Guidelines that address traffic metrics under CEQA. As stated in the legislation (and Section 21099[b][2] of CEQA), upon adoption of the new CEQA guidelines, "automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the CEQA guidelines, if any." The Office of Administrative Law approved the updated CEQA Guidelines on December 28, 2018, and the changes are reflected in new CEQA Guidelines (Section 15064.3). CEQA Guidelines Section 15064.3 was added December 28, 2018, to address the determination of significance for transportation impacts. Pursuant to the current CEQA Guidelines, vehicle miles traveled (VMT) replaced congestion as the metric for determining transportation impacts. Additionally, according to the 2018 LCI Technical Advisory on Evaluating Transportation Impacts in CEQA, small land use projects that would generate or attract fewer than 110 trips per day generally may be assumed to cause a less than significant impact related to VMT.

Construction

The project proposes to replace the upstream slide gate valve structure; demolish the existing isolation valve and replace the exposed outlet pipe and downstream valve stem; install a raised landing and gate operator infrastructure at the top of the dam; and place rip rap and armoring on the upstream face of the dam. Due to the small nature of the proposed project, construction would last approximately six months and is anticipated to require minimal equipment including a crane, an excavator, a concrete truck, a dump truck, and a flatbed truck. It is expected that the majority of this equipment would remain on-site until construction is completed. Therefore, construction of the proposed project would not generate more than 110 trips per day, and construction-related impacts on VMT would be less than significant.

Operation

Operation of the proposed project would involve the continued operation of the existing dam infrastructure, which is expected to be operated approximately twice per year. Operation of the proposed project would require occasional trips by City employees for operation and maintenance activities; however, these trips are expected to occur on an as-needed-basis and would not generate more than 110 trips per day. During operation, the proposed dam infrastructure improvements would not result in a substantial increase of users of the Willow Hill Community Park, because the park would return to pre-construction conditions. Therefore, operation-related impacts on VMT would be less than significant.

Conclusion

In total, the trips generated by the proposed project during construction and operation of the proposed project would be less than the 110 trips per day threshold established by LCI. Therefore, the impact related to VMT would be less than significant, and no mitigation would be necessary.

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

No Impact. The proposed project would replace and improve the existing dam infrastructure at the Willow Hill Reservoir. The proposed project does not include any design features that would create a hazard, such as sharp curves or dangerous intersections in the access road. Therefore, no impact would occur, and no mitigation would be necessary.

d) Result in inadequate emergency access?

Less than Significant Impact. Construction staging is proposed approximately 150 feet northwest of the Willow Hill Reservoir dam between the existing trail and reservoir. Potential access routes to the construction area include existing paved, gravel, and dirt trails ranging from approximately 10 feet to 25 feet in width and are located to the east of the dam off of Barnhill Drive; to the southeast of the dam off of Blossom Rock Lane; to the southwest of the dam off of Prairie City Road; and along the western perimeter of the reservoir off of a Folsom High School parking lot. Construction of the proposed project would not alter emergency access on Iron Point Road, Barnhill Drive, Blossom Rock Lane, or Prairie City Road. Operation and maintenance activities for the proposed project would require occasional trips by City employees; however, these trips would be minimal and would not interfere with the local street network or result in inadequate emergency access. Therefore, the impact would be less than significant, and no mitigation would be necessary.

XVIII. TRIBAL CULTURAL RESOURCES

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

Environmental Setting

CEQA, as amended in 2014 by Assembly Bill (AB) 52, requires that the City provide notice to any California Native American tribes that have requested notice of projects subject to CEQA review and consult with tribes that responded to the notice within 30 days of receipt with a request for consultation. Section 21073 of the Public Resources Code (PRC) defines California Native American tribes as "a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of the Statutes of 2004." This includes both federally and non-federally recognized tribes. In the City, these include the following tribes that previously submitted general request letters, requesting such noticing:

- Wilton Rancheria (initial letter dated February 3, 2025, and subsequent letter dated February 25, 2025 to reflect corrected address)
- Ione Band of Miwok Indians (letter dated February 3, 2025)
- United Auburn Indian Community (UAIC) of the Auburn Rancheria (letter dated February 3, 2025)

The purpose of consultation is to identify Tribal Cultural Resources (TCR) that may be significantly impacted by the proposed project, and to allow the City to avoid or mitigate significant impacts prior to

project approval and implementation. Section 21074(a) of the PRC defines TCRs for the purpose of CEQA as: Sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

a) Included or determined to be eligible for inclusion in the California Register of Historical Resources; and/or,

b) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1; and/or,

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

Because criteria a) and b) also meet the definition of a Historical Resource under CEQA, a TCR may also require additional consideration as a Historical Resource. TCRs may or may not exhibit archaeological, cultural, or physical indicators and can only be identified by a culturally affiliated tribe, which has been determined under State law to be the subject matter expert for TCRs.

Assembly Bill 52 Consultation

CEQA requires that the City initiate consultation with tribes at the commencement of the CEQA process to identify TCRs. Furthermore, because a significant effect on a TCR is considered a significant impact on the environment under CEQA, consultation is required to develop appropriate avoidance, impact minimization, and mitigation measures. Therefore, in accordance with the requirements summarized above, the City carried out, or attempted to carry out, tribal consultation for the project.

On February 3, 2025, the City sent project notification letters to the three California Native American tribes named on the City's AB 52 contact list. The letters provided each tribe with the location and a brief description of the proposed project, contact information for the City's authorized representative, and a notification that the tribe has 30 days to request consultation. A subsequent project notification letter, dated February 25, 2025, was sent to Wilton Rancheria to reflect a correction in the Tribe's address.

The 30-day consultation window for the Ione Band of Miwok Indians and the UAIC of the Auburn Rancheria opened on February 3, 2025, and neither tribe requested formal consultation. Following receipt of the corrected letter, dated February 25, 2025, Ms. Vanesa Kremer of the Wilton Rancheria responded to the City on March 6, 2025 and requested to open consultation due to the project's location within the Tribe's ancestral and culturally-affiliated territory.

On March 14, 2025, Wilton Rancheria sent a subsequent email to the City and stated that, although the project site is within the Tribe's ancestral territory, the Tribe did not have further comments. On March 18, 2025, the City corresponded with Wilton Rancheria regarding continued consultation, and on March 19, 2025, the Tribe stated that formal consultation was no longer requested. As such, consultation with Wilton Rancheria concluded on March 19, 2025.

Impact Analysis

a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

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

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

Less than Significant with Mitigation. Information about potential impacts to TCRs was drawn from information provided by consulting and culturally affiliated tribes, the ethnographic context, and the results of a search of the Sacred Lands File by the NAHC. The Ione Band of Miwok Indians and the UAIC did not request formal consultation for the proposed project. Wilton Rancheria initially requested formal consultation, however; although the project site is within the Tribe's ancestral territory, the Tribe subsequently informed the City that formal consultation was no longer requested.

However, there exists a potential for the discovery of previously unknown TCRs during project construction. If TCRs are encountered, the proposed project could result in a significant impact to those resources. Mitigation Measure TCR-1 would ensure that potential impacts to TCRs are addressed in the event that TCRs are encountered during ground disturbing activities. Based on the consultation record summarized above, the City concludes that there would be a less than significant impact on TCRs with the incorporation of Mitigation Measure TCR-1.

TCR-1: Unanticipated Discovery of Tribal Cultural Resources.

If suspected Tribal Cultural Resources (TCRs) are discovered during ground disturbing construction activities, all work shall cease within 50 feet of the find, or an agreed upon distance based on the project area and nature of the find. The project Contractor shall notify the City of the find. A Native American Representative from traditionally and culturally affiliated Native American Tribes that requested consultation on the project shall be immediately contacted by the City and invited to assess the significance of the find and make recommendations for further evaluation and treatment, as necessary. If deemed necessary by the City, a qualified cultural resources specialist, who meets the Secretary of Interior's Standards and Qualifications for Archaeology, may also assess the significance of the find in joint consultation with Native American Representatives to ensure that Tribal values are considered. Work at the discovery location shall not resume until the City, in consultation as appropriate and in good faith, determines that the discovery is either not a TCR, or has been subjected to culturally appropriate treatment, if avoidance and preservation cannot be accommodated.

When avoidance is infeasible, preservation in place is the preferred option for mitigation of TCRs under the California Environmental Quality Act (CEQA), and every effort shall be made to preserve the resources in place, including through project redesign, if feasible. 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, or returning objects to a location within the project area where they will not be subject to future impacts. Permanent curation of TCRs will not take place unless approved in writing by the California Native American Tribe that is traditionally and culturally affiliated with the project area.

The contractor shall implement all 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 not limited to, facilitating the appropriate tribal treatment of the find, as necessary. Treatment that preserves or restores the cultural character and integrity of a TCR 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 52, have been satisfied.

XIX. UTILITIES AND SERVICE SYSTEMS

		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:					
a)	Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or 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 which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
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?	☐	☐	☒	☐

Environmental Setting

Existing utilities for the Willow Hill Reservoir Community Park are provided by Sacramento Municipal Utility Service District (SMUSD) for electricity, the City of Folsom for solid waste disposal, and the City of Folsom for water and sewer facilities. The City of Folsom employs a design process that includes coordination with potentially affected utilities as part of project development. Identifying and accommodating existing utilities is part of the design process, and utilities are considered when finalizing public project plans. The City of Folsom coordinates with the appropriate utility companies to plan and implement any needed accommodation of existing utilities, including water, sewer, telephone, gas, electricity, and cable television lines.

Evaluation of Utilities and Service Systems

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

Less than Significant Impact. The proposed project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities. The proposed project would replace and improve the existing dam infrastructure at the Willow Hill Reservoir. The proposed valve operator infrastructure would be mechanically operated and would not require the expansion of electric power or natural gas. Therefore, the impact would be less than significant, and no mitigation would be necessary.

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

Less than Significant Impact. There would be sufficient water supplies available to serve the project. Minimal water may be required during construction for dust suppression and concrete preparation; however, this temporary use of water would be readily available from local supplies and would not impact long-term water supplies. Once completed, typical operation and maintenance activities required for the project would not require substantial amounts of water. The impact would be less than significant, and no mitigation would be necessary.

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

No Impact. The City of Folsom is responsible for managing and maintaining its wastewater collection system. This system ultimately discharges into the Sacramento Area Sewer District interceptor sewer system. Wastewater is treated at the EchoWater Resource Recovery Facility, located in the City of Elk Grove. There are no wastewater treatment facilities in the project area, nor would the project require the expansion of the capacity of existing wastewater facilities. The proposed project would replace and improve the existing dam infrastructure at the Willow Hill Reservoir. As discussed in Section 9.XIV, Population and Housing, the proposed project would not result in population growth; therefore, no new demand on an existing wastewater treatment provider would occur as a result of the project. No impact would occur, and no mitigation would be necessary.

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?

Less than Significant Impact. The proposed project would not generate solid waste in excess of State or local standards, or in the excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, and would comply with federal, State, and local management and reduction statutes and regulations related to solid waste. Construction of the proposed project would involve the removal of silt or vegetation from the construction area, and demolition of portions of the existing dam infrastructure. Waste generated during construction would be minimal and would be transported to the Kiefer Landfill, the primary municipal solid waste disposal facility in Sacramento County. This State-permitted landfill is 660 acres in size and is of sufficient capacity to accommodate the solid waste disposal needs of the City of Folsom. Upon completion of the project, operation and maintenance activities would not generate any waste. The landfill serving the project site is of sufficient capacity to accommodate solid waste needs during construction; therefore, the impact would be less than significant, and no mitigation would be necessary.

XX. WILDFIRE

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
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 roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Environmental Setting

Public Resources Code 4201-4204 directs CAL FIRE to map fire hazard within State Responsibility Areas based on fuel loading, slope, fire weather, and other relevant factors present, including areas where winds have been identified by the department as a major cause of wildfire spread. These zones, referred to as Fire Hazard Severity Zones, classify a wildland zone as Moderate, High, or Very High fire hazard based on the average hazard across the area included in the zone. According to CAL FIRE's Fire Hazard Severity Zone Map, the project site is located within a Local Responsibility Area and is not located within a Very High Fire Hazard Severity Zone (CAL FIRE 2024).

Impact Analysis

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 roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

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

No Impact. Questions a) through d) are not applicable because the project site is not located within or near a State Responsibility Area, nor is the site located within a Very High Fire Hazard Severity Zone. Therefore, no impact would occur, and no mitigation would be necessary.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a)	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of past, present and probable future projects)?	☐	☐	☒	☐
c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Evaluation

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

Less than Significant with Mitigation. As discussed in Sections 9.IV, 9.V, and 9.XVIII, implementation of the proposed project would have the potential to degrade the quality of the environment and reduce the habitat of a protected plant and/or animal species. However, potential impacts to threatened, endangered, candidate, or special-status species, cultural resources, or tribal cultural resources would be mitigated to a less than significant level with implementation of Mitigation Measures BIO-1 through BIO-5, CUL-1 and CUL-2, GEO-1, and TCR-1. Therefore, the impact would be less than significant with incorporation of these mitigation measures.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of past, present and probable future projects)?

Less than Significant Impact. As discussed in Sections 9.I through 9.XX, implementation of the proposed project would not result in significant and unavoidable impacts. Cumulative impacts could occur if construction of other projects occurs at the same time as the proposed project and in the same geographic scope, such that the effects of similar impacts of multiple projects combine to create greater levels of impact than would occur at the project level. For example, if the construction of other projects in the area occurs at the same time as construction activities associated with the proposed project, combined noise and transportation impacts may be treater than at the project level.

However, due to the nature of the proposed project, no cumulatively considerable impact would occur. Construction-related impacts would be temporary and would cease following the completion of the proposed dam infrastructure improvements. Operation of the proposed project would involve the continued operation of the existing dam infrastructure, which is expected to be operated approximately twice per year. The incremental effects of the proposed project would not be considerable when viewed in connection with the effects of past, current, and probable future projects in the region. For these reasons, no cumulatively considerable impact would occur. The impact would be less than significant.

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

Less than Significant Impact. As discussed in Sections 9.I through 9.XX, implementation of the proposed project would not directly or indirectly cause substantial adverse effects on human beings. As evaluated in Sections 9.III, 9.VII, 9.IX, 9.XIII, 9.XVII, and 9.XX, the proposed project would not expose human beings to hazards related to toxic air contaminants, hazardous materials, ground shaking, flooding, noise, transportation, or wildfire. Therefore, the impact would be less than significant.

10.0 MITIGATION MONITORING AND REPORTING PROGRAM

The Mitigation Monitoring and Reporting Program (MMRP) has been prepared by the City per Section 15097 of the CEQA Guidelines. The MMRP is available as Appendix B to this IS/MND.

11.0 INITIAL STUDY PREPARERS

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12.0 REFERENCES

California Air Pollution Control Officers Association (CAPCOA). 2022. User's Guide for CalEEMod Version 2022.1. Available at: http://www.caleemod.com/.

California Air Resources Board (CARB). 2025a. Maps of State and Federal Area Designations. Accessed February 14. Available at: https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations.

2025b. Overview: Diesel Exhaust and Health. Accessed February 3. Available at: https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health.

2022. 2022 Scoping Plan for Achieving Carbon Neutrality. November 16. Available at: https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents.

2005. Air Quality and Land Use Handbook: A Community Health Perspective. Available at: https://www.aqmd.gov/docs/default-source/ceqa/handbook/california-air-resources-board-air-quality-and-land-use-handbook-a-community-health-perspective.pdf.

Bolster, B.C., editor. 1998. Terrestrial Mammal Species of Special Concern in California. Draft Final Report prepared by P.V. Brylski, P.W. Collins, E.D. Pierson, W.E. Rainey and T.E. Kucera. Report submitted to California Department of Fish and Game Wildlife Management Division, Nongame Bird and Mammal Conservation Program for Contract No. FG3146WM.

California Department of Conservation (DOC). 2024a. Farmland under the Farmland Mapping and Monitoring Program. Accessed October 14, 2024 at: https://maps.conservation.ca.gov/DLRP/CIFF/.

2024b. California Earthquake Hazards Zone Application (EQ Zapp). Accessed October 14, 2024 at: https://maps.conservation.ca.gov/cgs/EQZApp/app/.

2024c. California Geological Survey. Accessed on October 14, 2024 at: https://maps.conservation.ca.gov/cgs/fam/.

2024d. Mines Online. Accessed October 14, 2024 at: https://maps.conservation.ca.gov/mol/index.html.

California Department of Fire and Forestry (CAL FIRE). 2024. Fire Hazard Severity Zone Viewer. Accessed October 10, 2024 at: https://calfire-forestry.maps.arcgis.com/apps/webappviewer/index.html?id=988d431a42b242b29d89597ab693d008.

California Department of Fish and Wildlife (CDFW). 2024. *California Natural Diversity Database* (CNDDB). For *Folsom, Roseville, Rocklin, Pilot Hill, Citrus Heights, Clarksville, Carmichael, Buffalo Creek,* and *Folsom SE* USGS 7.5-minute series quadrangles, Sacramento, CA.

California Department of Toxic Substances Control (DTSC). 2025. Accessed January 13, 2025 at: https://www.envirostor.dtsc.ca.gov/public/search?basic=True.

California Department of Transportation (Caltrans). 2025. California Scenic Highway Mapping System. Accessed January 13, 2025 at: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa.

California Energy Commission (CEC). 2021a. 2020 Total System Electric Generation. Accessed April 10, 2025 at: https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2019-total-system-electric-generation.

2021b. Supply and Demand of Natural Gas in California. Accessed April 10, 2025 at: https://www.energy.ca.gov/data-reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california.

2021c. California Gasoline Data, Facts, and Statistics. Accessed April 10, 2025 at: https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-gasoline-data-facts-and-statistics.

2021d. Diesel Fuel Data, Facts, and Statistics. Accessed April 10, 2025 at: https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/diesel-fuel-data-facts-and-statistics.

California Native Plant Society (CNPS). 2024. Inventory of Rare and Endangered Plants (online edition, v8-03 0.39) For: *Folsom, Roseville, Rocklin, Pilot Hill, Citrus Heights, Clarksville, Carmichael, Buffalo Creek,* and *Folsom SE* USGS 7.5-minute series quadrangles, Sacramento, CA

Calscape. 2024. By the California Native Plant Society. Available at: https://calscape.org/.

eBird. 2024. Explore Species or Explore Regions. Available online at: https://ebird.org/explore.

Federal Emergency Management Agency (FEMA). 2025. FEMA Flood Map Service Center. Accessed January 22, 2025 at https://msc.fema.gov/portal.

Folsom, City of (City). 2025. Folsom Municipal Code. Accessed October 24, 2024 at: https://www.codepublishing.com/CA/Folsom/.

2024. Folsom 2035 General Plan. Amended August 28, 2024. Accessed October 15, 2024 at: https://www.folsom.ca.us/home/showdocument?id=18784&t=638630306939444676.

2021. Greenhouse Gas Reduction Strategy Consistency Checklist. Updated March 24. Available at: https://www.folsom.ca.us/home/showpublisheddocument/158/637522677783670000.

2020a. Folsom Evacuation Plan. Accessed October 24, 2024 at: https://www.folsom.ca.us/home/showpublisheddocument/2229/637478591337570000.

2020b. Standard Construction Specifications. Available at: https://www.folsom.ca.us/home/showpublisheddocument/390/637466585865470000

2018. Folsom 2035 General Plan Environmental Impact Report. Accessed October 15, 2024 at: https://www.folsom.ca.us/government/community-development/planning-services/environmental-documents.

2007. Folsom Bikeway Master Plan. Accessed January 8, 2025 at: https://www.folsom.ca.us/government/parks-recreation/parks-trails-and-open-space/trails/bikeway-master-plan.

Gervais, J. A., Rosenberg, D. K., and Anthony, R. G. 2003. Space use and pesticide exposure risk of male Burrowing Owls in an agricultural landscape. J. Wildl. Mgmt. 67:156–165.

HELIX Environmental Planning, Inc. (HELIX). 2025a. Air Quality and Greenhouse Gas Emissions Analysis for Willow Hill Dam Valve Replacement Project.

2025b. Biological Resources Assessment for Willow Hill Dam Valve Replacement Project.

2025c. Cultural Resources Assessment for Willow Hill Dam Valve Replacement Project.

Intergovernmental Panel on Climate Change (IPCC). 2007. Climate Change 2007: The Physical Science Basis. Summary for Policymakers. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. February. Available at: https://www.ipcc.ch/report/ar4/wg1/.

Lady Bird Johnson Wildflower Center. 2024. Plant Database, *Hibiscus lasiocarpos*. Available at: https://www.wildflower.org/plants/result.php?id_plant=hila6.

Lindstrom, Susan G. 1993. Cultural Resource Inventory of Prairie City Center Project, 404 Acres Near Folsom, California, Sacramento County. Report on file at the North Central California Information Center.

1988. A Cultural Resource Evaluation of the Morrison Homes-Los Cerros Project, Folsom, California, Sacramento County. Report prepared for Environmental Impact Professionals, Sacramento, California. Report on file at the North Central California Information Center.

Natural Resources Conservation Service (NRCS), United Stated Department of Agriculture. 2024. Soil Survey of Willow Hill Reservoir, Folsom, California. Accessed October 14, 2024 at: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.

NETR Online. 2024. Historic Aerials. Electronic resource, https://www.historicaerials.com/viewer. Accessed November 25, 2024.

Office of Environmental Health Hazard Assessment (OEHHA). 2015. Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. Available at: https://oehha.ca.gov/air/crnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0.

Richmond, O.W., Chen, S.K., Risk, B.B., Tecklin, J., and S. R. Beissinger. 2010. California Black Rails Depend on Irrigation-fed Wetlands in the Sierra Nevada Foothills. California Agriculture: Volume 2, Number 2.

Sacramento County Association of Governments (SACOG). 2022. Mather Airport – Airport Land Use Compatibility Plan. August 2022. Available at: https://www.sacog.org/home/showpublisheddocument/2728/638715078803870000.

2019. 2020 MTP/SCS. Available at: https://www.sacog.org/planning/blueprint/2020-mtp-scs.

Sacramento Metropolitan Air Quality Management District (SMAQMD). 2020a. CEQA Guide. Chapter 2 Appendix: Thresholds of Significance Table. April. Available at: https://www.airquality.org/LandUseTransportation/Documents/CH2ThresholdsTable4-2020.pdf.

2020b. CEQA Guide Chapter 4: Operational Criteria Air Pollutant and Precursor Emissions. October. Available at: https://www.airquality.org/LandUseTransportation/Documents/Ch4OperationalFinal10-2020.pdf.

2019. Basic Construction Emissions Control Practices. Revised July. Available at: http://www.airquality.org/LandUseTransportation/Documents/Ch3BasicEmissionControlPracticesBMPSFinal7-2019.pdf.

2016. CEQA Guide Chapter 7: Odors. June. Available at: https://www.airquality.org/LandUseTransportation/Documents/Ch7Odors%20FINAL6-2016.pdf.

Shapiro, William A., 1989. Isolate Find Record on File with the NCIC.

Shuford, W.D., and T. Gardali, editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.

Spautz, Hildie; Nur, Nadav; Stralberg, Diana. 2005. California Black Rail (*Laterallus jamaicensis coturniculus*) Distribution and Abundance in Relation to Habitat and Landscape Features in the San Francisco Bay Estuary. In: Ralph, C. John; Rich, Terrell D., editors 2005. Bird Conservation Implementation and Integration in the Americas: Proceedings of the Third International Partners in Flight Conference. 2002 March 20-24; Asilomar, California, Volume 1 Gen. Tech. Rep. PSW-GTR-191. Albany, CA: U.S. Dept. of Agriculture, Forest Service, Pacific Southwest Research Station: p. 465-468

State Water Resources Control Board (SWRCB). 2025. GeoTracker. Accessed January 13, 2025 at: https://geotracker.waterboards.ca.gov/search.

Tardoff, Judy, 1994. Historic Study Report: Proposed Interchange and Auxiliary Lanes on Highway 50, Eastern Sacramento County, California. California Department of Transportation, 03-SAC-50, P.M. 17.1/20/1, 03101-394500. Report on file at the North Central California Information Center.

Thomson, R.C., Wright, A.N., and H.B. Shaffer. 2016. California Amphibian and Reptile Species of Special Concern. Oakland, California: University of California Press.

United States Census Bureau (U.S. Census Bureau). 2023. QuickFacts for City of Folsom. Accessed October 24, 2024 at: https://www.census.gov/quickfacts/fact/table/folsomcitycalifornia,US/PST045223.

U.S. Environmental Protection Agency (USEPA). 2025. Superfund National Priorities List (NPL) Map. Accessed February 7, 2025 at: https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=33cebcdfdd1b4c3a8b51d416956c41f1.

U.S. Fish and Wildlife Service (USFWS). 2024a. Information for Planning and Consultation (IPaC) Trust Resource Report: Willow Hill Reservoir.

USFWS 2024b. National Wetlands Inventory. Available online at: https://www.fws.gov/program/national-wetlands-inventory.

U.S. Geological Survey (USGS). 2021. *Folsom, California*. 7.5 -minute series topographic quadrangle. U.S. Department of the Interior.

Windmiller, Ric, 2005. The Oaks at Willow Springs Folsom, Sacramento County, California. Report on file at the North Central California Information Center.

Yolo HCP/NCCP. 2018. Appendix A, Covered Species Accounts. Available at: https://www.yolohabitatconservancy.org/_files/ugd/8f41bd_fe2dbace4f6941ea985e64df9ce9bd72.pdf.

Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. *California's Wildlife: California Wildlife Habitat Relationships*. Volumes I-III. Wildlife and Habitat Data Analysis Branch, California Department of Fish and Game. Available online at: https://wildlife.ca.gov/Data/CWHR.

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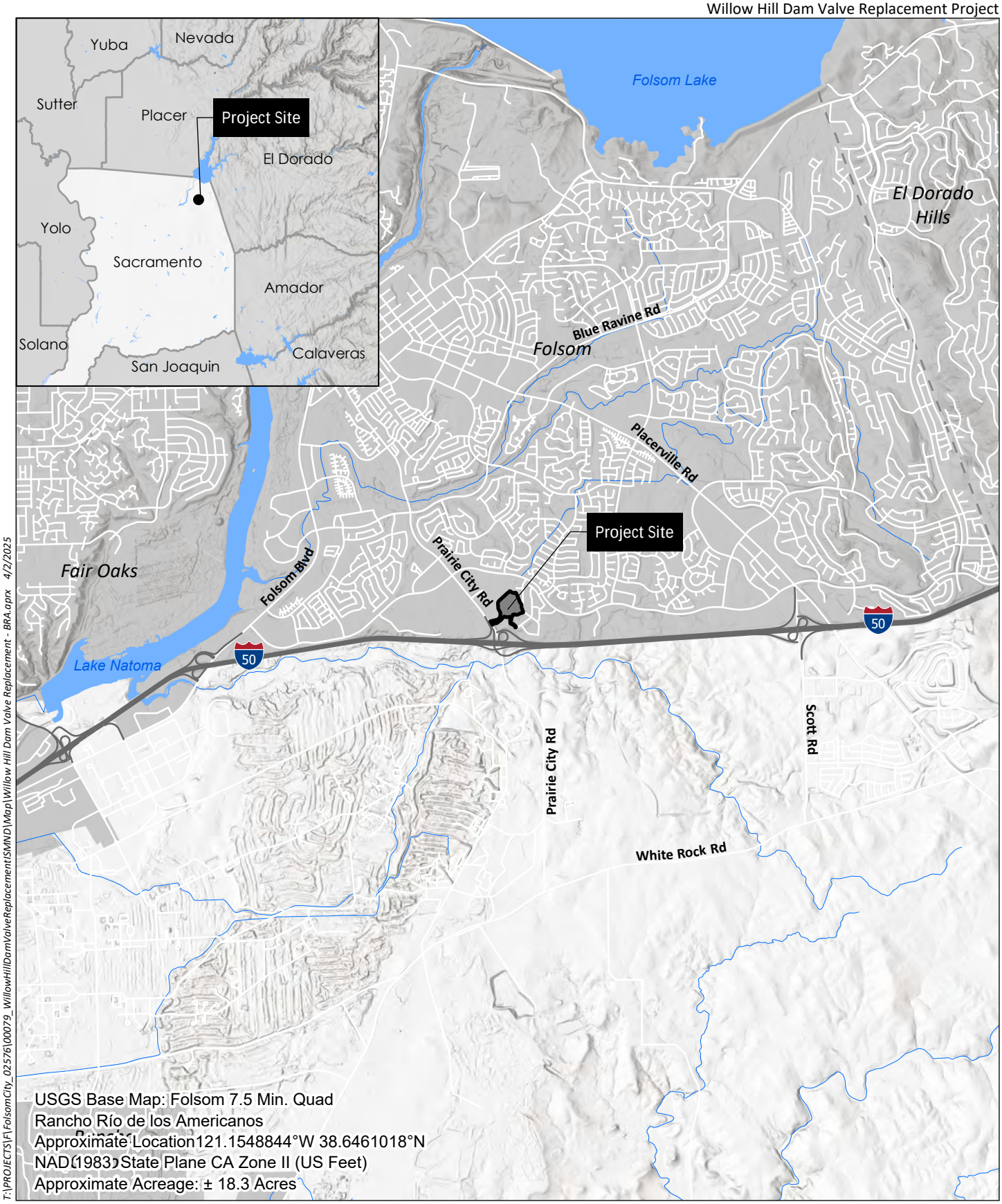
Appendix A

Figures



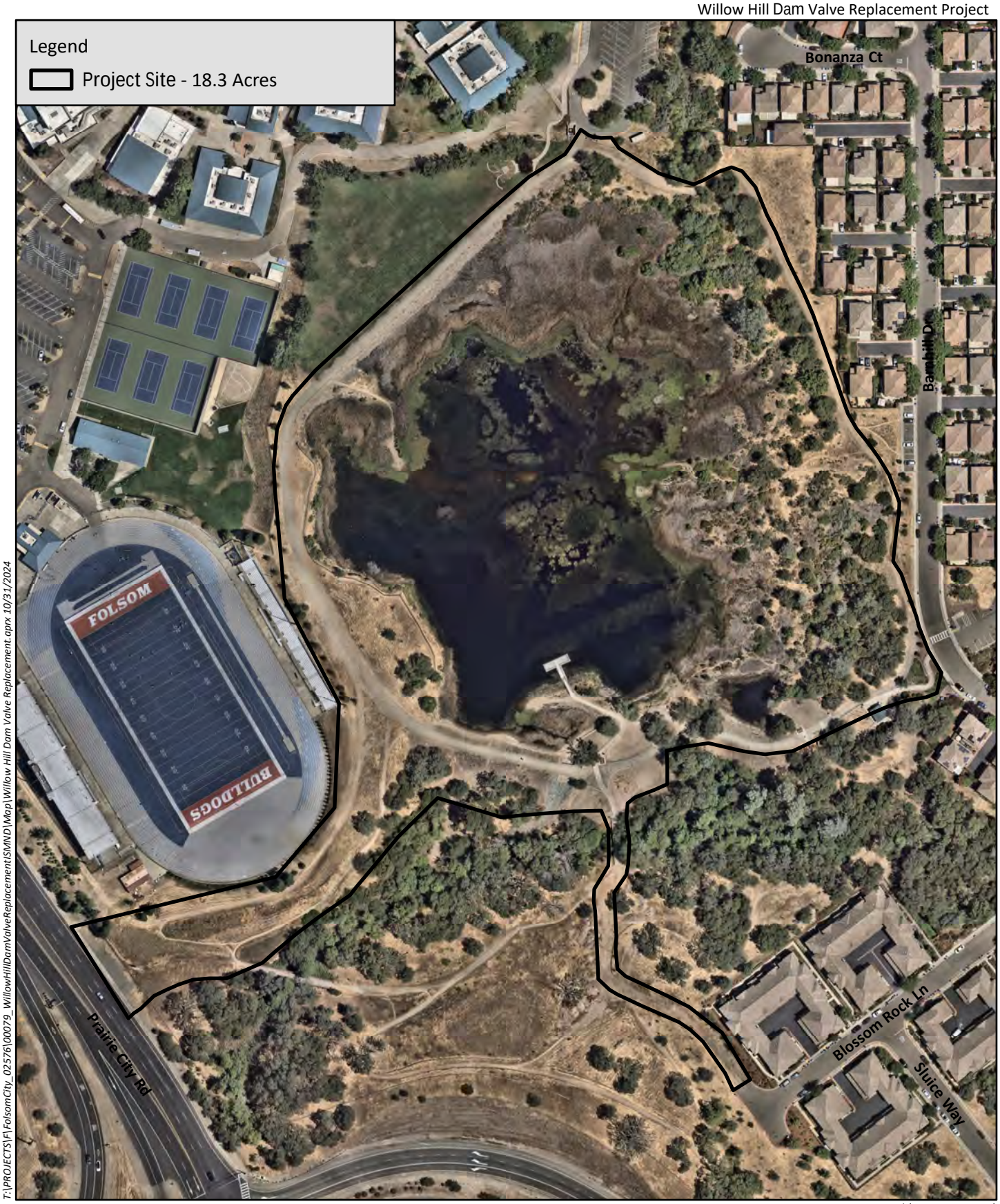
T:\PROJECTS\F\FolsomCity_02576\00079_WillowHillDamValveReplacement\SMND\Map\Willow Hill Dam Valve Replacement - BRA.aprx 4/2/2025

Source: Base Map Layers (Esri, USGS, NGA, NASA)

HELIX Environmental Planning

Site and Vicinity Map

Figure 1

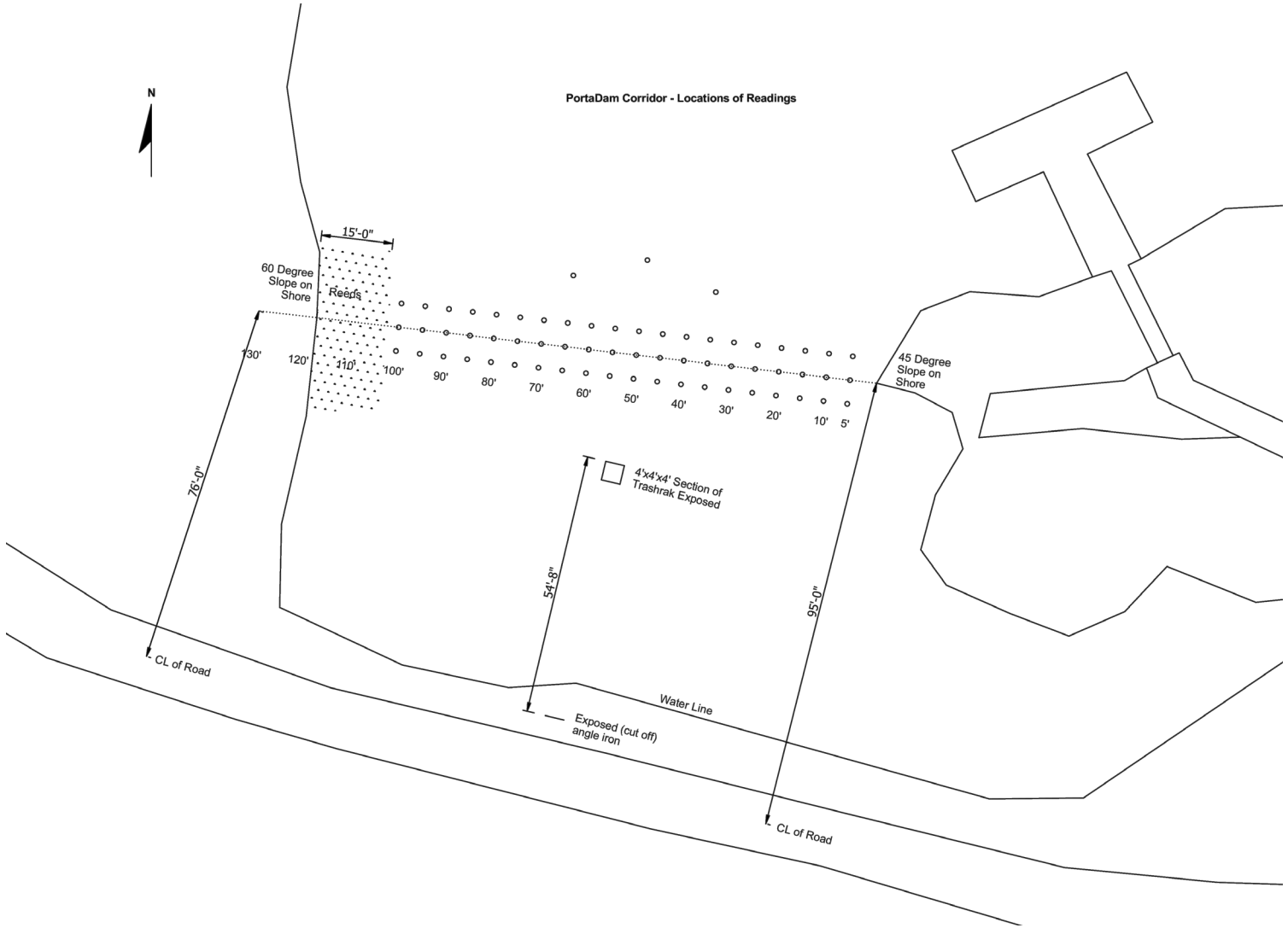


Source: Aerial (Nearmap, 2024)

HELIX Environmental Planning

Project Site

Figure 2



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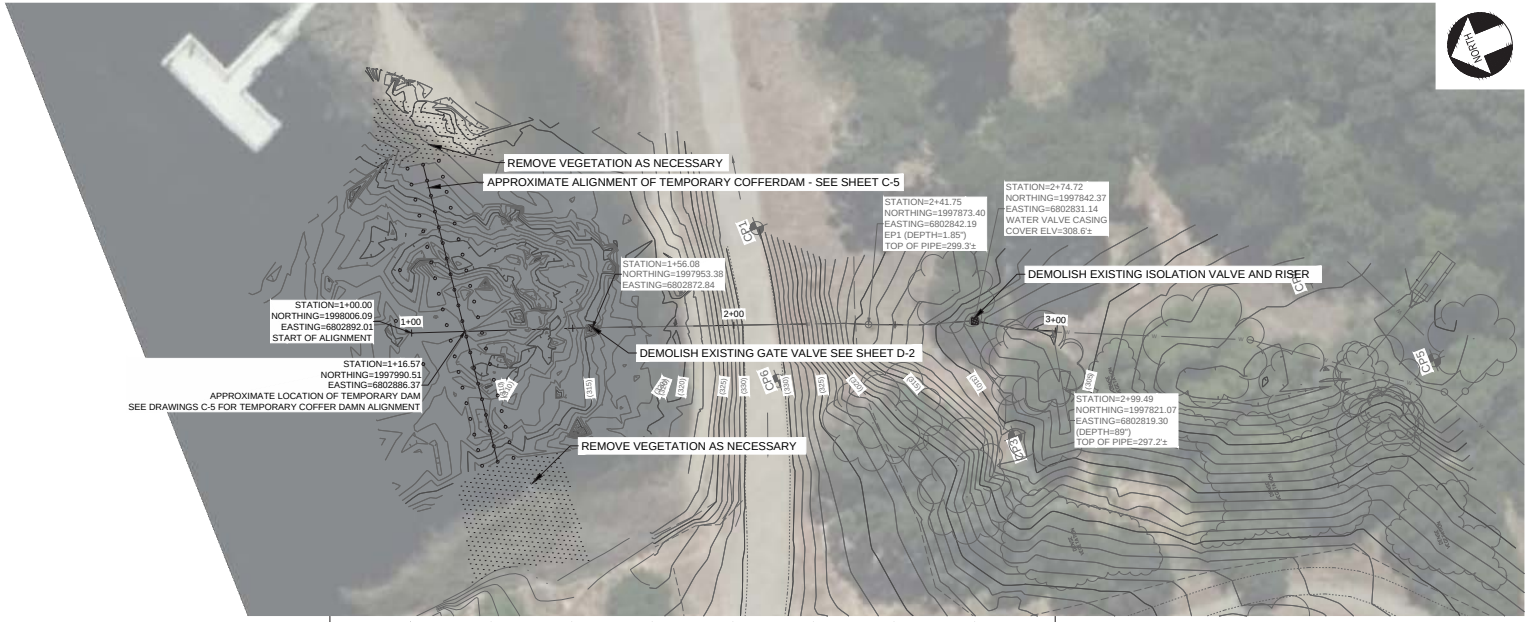
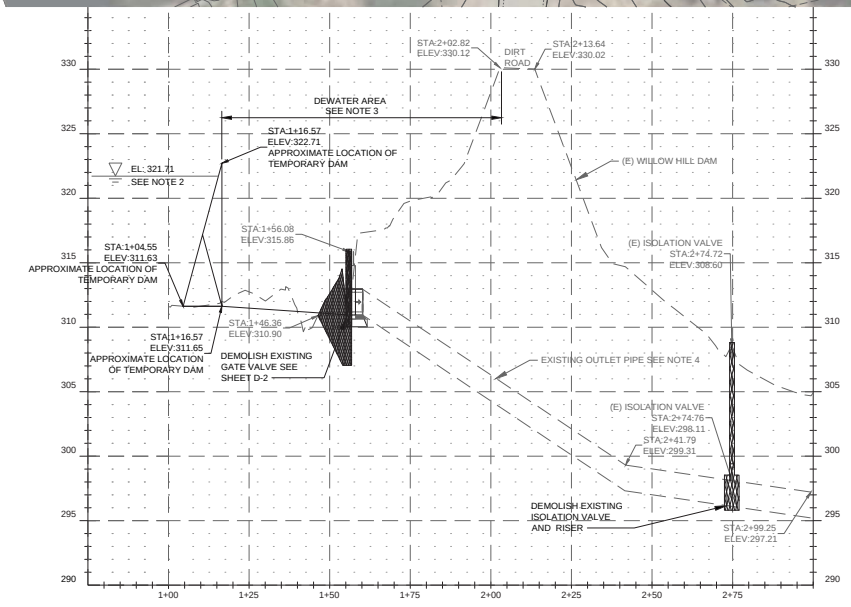
Source: Water Works Engineers 7/2/2024

HELIX Environmental Planning

Coffer Dam Alignment

Figure 3





NOTES:

1. CONTRACTOR TO FIELD VERIFY ALL CONTROLLING ELEVATION AND DIMENSIONS PRIOR TO COMMENCING WORK.
2. APPROXIMATE TARGET WATER ELEVATION DURING CONSTRUCTION.
3. DEWATER AREA BETWEEN COFFER DAM AND DAM FACE TO FACILITATE VALVE REMOVAL AND REPLACEMENT.
4. DEWATER AND CLEAN EXISTING OUTLET PIPE. PROVIDE VIDEO FOR CONDITION ASSESSMENT OF OUTLET PIPE BETWEEN INLET VALVE AND ISOLATION VALVE @ STA 2+75 AND SUBMIT TO ENGINEER FOR REVIEW PRIOR TO COMMENCING VALVE REPLACEMENT.

Source: Water Works Engineers 7/1/2024

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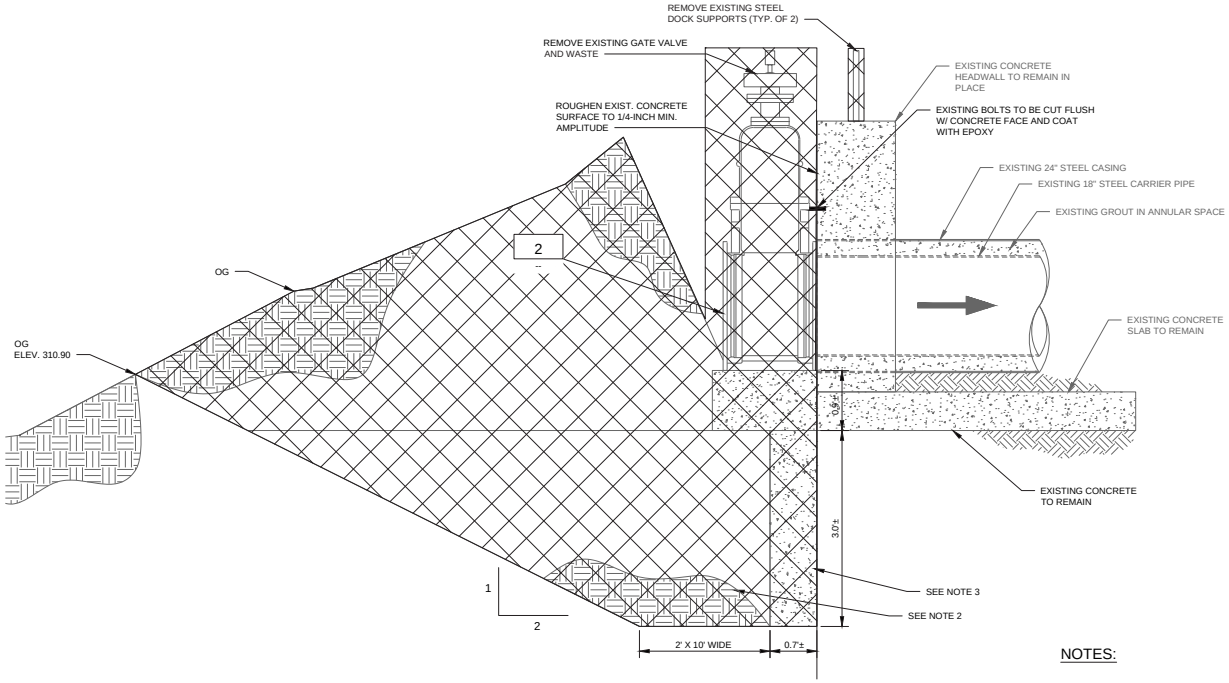
HELIX Environmental Planning

Vegetation Removal and Demolition Location

Figure 4



1 -- UPSTREAM DEMOLITION DETAIL
1" = 1'

2 -- EXISTING UPSTREAM END OF OUTLET
NTS

NOTES:

1. LOCATION, SLOPE AND ELEVATION ASSUMED. CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH OF PIPE.
2. THE FINAL LIMITS OF EXCAVATION WILL BE DETERMINED BY THE ENGINEER DURING EXCAVATION. APPROXIMATE LIMITS WILL BE NOTED ON DETAIL.
3. EXISTING CONCRETE LIMITS UNKNOWN. SAWCUT AND REMOVE TO THE LIMITS SHOWN

Source: Water Works Engineers 6/21/2024

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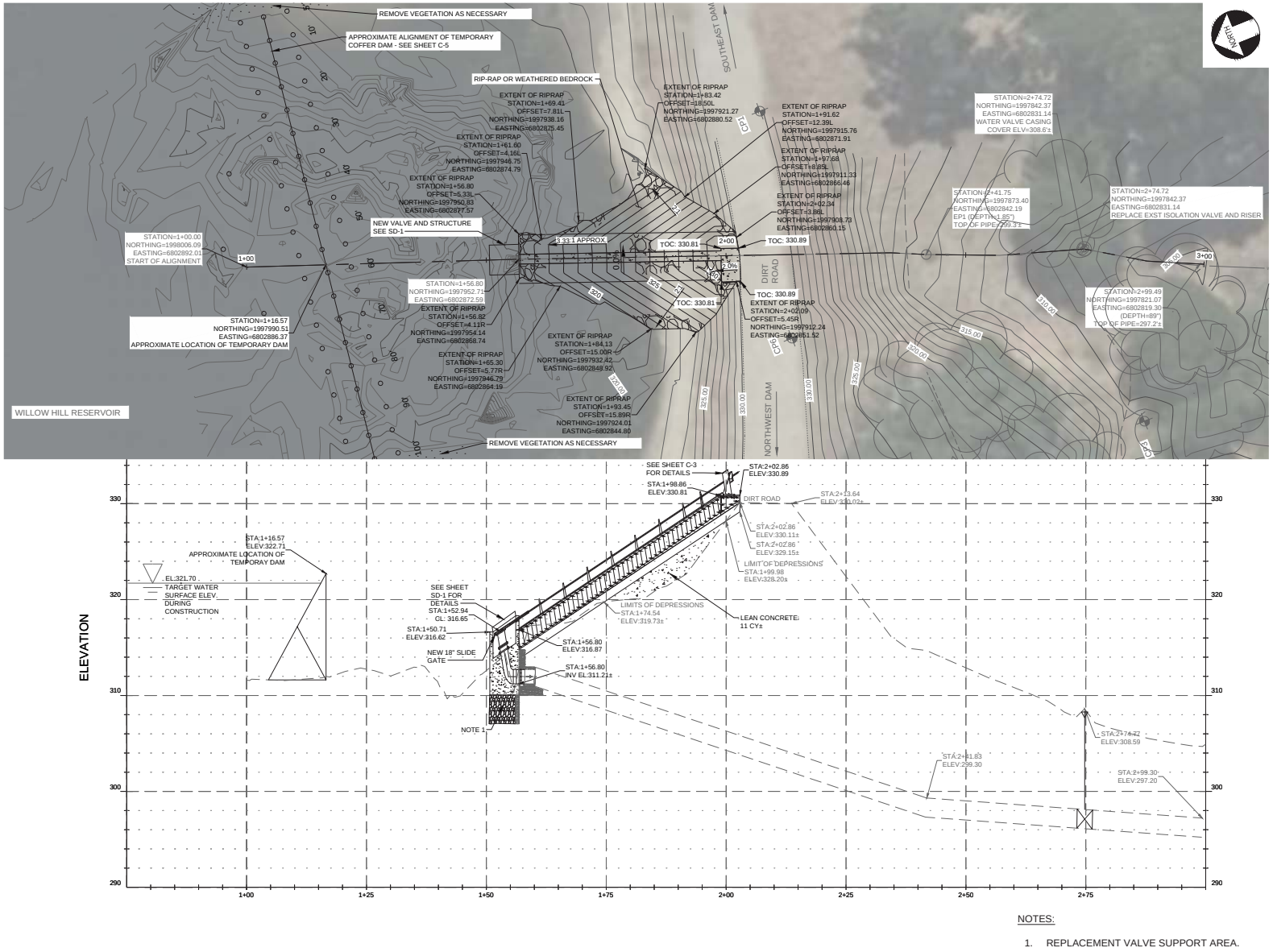
HELIX Environmental Planning

Upstream Slide Gate Valve Demolition Detail

Figure 5



NOTES:

1. REPLACEMENT VALVE SUPPORT AREA.

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Source: Water Works Engineers 7/2/2024

HELIX Environmental Planning

Site Plan

Figure 6

Appendix B

Mitigation Monitoring and Reporting Program

MITIGATION MONITORING AND REPORTING PROGRAM
WILLOW HILL DAM VALVE REPLACEMENT PROJECT

Purpose of Mitigation Monitoring and Reporting Program: The California Environmental Quality Act (CEQA), Public Resources Code Section 21081.6, requires that a Mitigation Monitoring and Reporting Program (MMRP) be established upon completing findings. CEQA stipulates that "the public agency shall adopt a reporting or monitoring program for the changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation."

This MMRP has been prepared in compliance with Section 21081.6 of CEQA to ensure that all required mitigation measures are implemented and completed according to schedule and maintained in a satisfactory manner during the construction and operation of the project, as required. A table (attached) has been prepared to assist the responsible parties in implementing the MMRP for the proposed Willow Hill Dam Valve Replacement Project (proposed project). The table identifies individual mitigation measures, monitoring/mitigation timing, the person/agency responsible for implementing the measure, and space to confirm implementation of the mitigation measures. The numbering of mitigation measures follows the numbering sequence found in the IS/MND.

The City of Folsom is the lead agency for the proposed project under CEQA and shall administer and implement the MMRP. The City is responsible for reviewing all monitoring reports, enforcement actions, and document disposition. The City shall rely on information provided by the project site observers/monitors (e.g., construction manager, project manager, biologist, archaeologist, etc.) as accurate and up-to-date and shall provide personnel to field check mitigation measure status, as required.

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MITIGATION MONITORING AND REPORTING PROGRAM
Willow Hill Dam Valve Replacement Project

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
BIOLOGICAL RESOURCES				
BIO-1: Avoid Impacts to Special-Status Plant Species A qualified botanist retained by the project Contractor shall conduct a special-status plant survey within the appropriate identification (blooming) period prior to the initiation of any ground-disturbing or dewatering activities. A survey conducted between June - August will satisfy the blooming period for all potentially occurring special-status plant species. Multiple survey rounds may be needed to adequately survey the area and capture blooming times depending on seasonal weather conditions. If no special-status plants are observed, then a letter report documenting the survey results shall be prepared and provided to the City, and no further measures are recommended. • If special-status plants are observed within the project site, the location of the special-status plants shall be marked with pin flags or other highly visible markers and may also be marked by a sub-meter accurate GPS. The City shall determine if the special-status plant(s) onsite can be avoided by project design or utilize construction techniques to avoid impacts to the special-status plant species. All special-status plants to be avoided shall have exclusion fencing or other highly visible material marking the avoidance area (if necessary) and the avoidance area shall remain in place throughout the entire construction period. If special-status plants are observed in portions of the project site that are not located near the project footprint, exclusion fencing may not be needed. A qualified botanist should determine if exclusion fencing will be needed based on the location of the plant(s) and the most current project design. If special-status plants are found within the project site and cannot be avoided, the City shall consult with the California Department of Fish and Wildlife (CDFW) as appropriate and depending on the status of the plant species in question, determine appropriate	Prior to ground-disturbing or dewatering activities.	Qualified Botanist; Project Contractor; City of Folsom.		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
measures to mitigate for the loss of special-status plant populations. These measures may include gathering seed from impacted populations for planting within nearby appropriate habitat, preserving or enhancing existing offsite populations of the plant species affected by the project, or restoring suitable habitat for special-status plant species habitat as directed by the regulatory agencies.				
BIO-2: Avoid Impacts to Northwestern Pond Turtle A qualified biologist retained by the project Contractor shall conduct a pre-construction survey for northwestern pond turtle within seven days prior to the start of dewatering or ground-disturbing activities in suitable habitat. The area of work near the downstream isolation valve shall be inspected for wintering or nesting turtles depending on the time of year. If construction does not commence within seven days of the survey, or halts for more than seven days, then an additional survey is required prior to starting or resuming work. • The qualified biologist shall be onsite during dewatering and coffer dam installation to avoid potential impacts to this species during construction. The biologist would not be needed onsite once all dewatering has occurred and the coffer dam is securely in place. If northwestern pond turtle is observed within the project area during work, specifically within the construction zone, all work shall immediately halt in the vicinity of the animal, and the animal will be allowed to leave the area of its own will. If the animal is in immediate danger, a qualified biologist will relocate the animal outside of the construction zone, at a safe distance from all construction-related activities, and within suitable habitat. No one other than a qualified biologist shall handle, take, or otherwise harass the animal. No work shall resume until the animal has moved or been removed from areas of potential disturbance. A qualified biologist retained by the project Contractor shall conduct an environmental awareness training for all project-related personnel before the initiation of work. The training shall include the identification of northwestern pond turtle, required practices before the start of construction, general measures that are being implemented to	Within seven days prior to dewatering or ground-disturbing activities.	Qualified Biologist; Project Contractor; City of Folsom.		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
protect the species as they relate to the project, penalties for non-compliance, and boundaries of the permitted disturbance zones. Upon completion, all construction personnel shall sign a form stating they have attended the training and understand all the measures. Directors, Managers, Superintendents, and the crew foremen and forewomen will be responsible for ensuring that crewmembers comply with the measures and guidelines. Proof of this instruction shall be kept on file with the biologist on-site and the project Contractor.				
BIO-3: Pre-Construction Nesting Bird Survey If construction activities occur during the nesting season (February 1 through August 31), a qualified biologist retained by the project Contractor shall conduct a nesting bird survey to determine the presence of any active nests within the project site. Additionally, the surrounding 500-feet of the project site shall be surveyed for active raptor nests, where accessible. The nesting bird survey should be conducted within seven days prior to commencement of ground-disturbing or other construction activities. If the nesting bird survey shows that there is no evidence of active nests, then a letter report shall be prepared to document the survey and be provided to the City and no additional surveys are recommended. If development does not commence within seven days of the nesting bird survey, or halts for more than seven days, then an additional survey is required prior to starting or resuming work within the nesting season. • If active nests are found, then the qualified biologist shall establish a species-specific buffer to prohibit development activities near the nest to avoid and minimize nest disturbance until the young have successfully fledged or the biologist determines that the nest is no longer active. Buffer distances may range from 30-feet for some songbirds up to 500-feet for California black rail and some raptors. The project Contractor shall ensure that the buffer is implemented by all construction personnel and that no construction activities occur within the buffer. Nest monitoring may also be warranted during certain phases of construction to ensure nesting birds are not adversely impacted. The need for nest monitoring shall be determined by the qualified biologist based	Within seven days of ground-disturbing or other construction activities during the nesting season (February 1 through August 31).	Qualified Biologist Project Contractor; City of Folsom.		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
upon the species nesting and the location of the nest in relation to the project disturbance area, proposed levels of project disturbance, and existing disturbance levels. If active nests are found within any trees slated for removal/trimming, then an appropriate buffer shall be established around the tree and all trees within the buffer shall not be removed/trimmed until a qualified biologist determines that the nest has successfully fledged and/or is no longer active. Nest avoidance buffer distances may need to be expanded if the biologist determines that the initial avoidance buffer is still resulting in avoidance behavior from the adults. • If tricolored blackbird, burrowing owl, or California black rail are found to be nesting in the project site or within 500-feet, agency consultation or additional measures may be needed prior to construction. A qualified biologist shall conduct environmental awareness training. The training may be combined with other environmental awareness trainings. If construction occurs outside of the nesting bird season (September 1 to January 31) a nesting bird survey and environmental training for nesting birds would not be required.				
BIO-4: Pre-Construction Roosting Bat Survey A qualified biologist retained by the project Contractor shall conduct a pre-construction survey within seven days of the commencement of ground-disturbing or other construction activities. This survey may be combined with the nesting bird survey if nesting bird surveys are required. If no bats are observed, a letter report shall be prepared to document the survey and provided to the City, and no additional measures are recommended. If construction does not commence within seven days of the pre-construction survey, or halts for more than seven days, an additional survey is recommended before starting work. • If bats are present and roosting on or within 100 feet of the project footprint, then the qualified biologist shall establish an appropriate buffer around the	Within seven days of ground-disturbing or other construction activities.	Qualified Biologist.		

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roost site. The project Contractor shall ensure that the buffer is implemented by all construction personnel and that no construction activities occur within the buffer. At minimum, no trees shall be removed within the project site (if applicable) until the biologist has determined that the bat is no longer roosting in the tree or structure. Additional mitigation measures for bat species, such as the installation of bat boxes or alternate roost structures, would be required only if special-status bat species are found to be roosting within the project site. A qualified biologist shall conduct environmental awareness training. The training shall include the identification of special-status bat species, required practices before the start of construction, general measures that are being implemented to protect the species as they relate to the project, penalties for non-compliance, and boundaries of the permitted disturbance zones. Upon completion, all construction personnel shall sign a form stating they have attended the training and understand all the measures. Directors, Managers, Superintendents, and the crew foremen and forewomen will be responsible for ensuring that crewmembers comply with the measures and guidelines. Proof of this instruction shall be kept on file with the biologist on-site and the project Contractor. This training may be combined with other environmental awareness trainings.				
BIO-5: Avoid Impacts to Aquatic Resources Before the initiation of any construction activities that could result in impacts to potentially regulated aquatic features, including ground-disturbing activities and dewatering, the extent of the Ordinary High-Water Mark (OHWM) of aquatic features within the project site shall be mapped, and applicable permits shall be prepared and submitted to the appropriate regulatory agencies for any project-related impacts to these features. Any conditions included in the final permits, including prescribed mitigation measures, would be required to be implemented before filling or impacting these features. • Section 404 authorization from the U.S. Army Corps of Engineers (USACE) and	Prior to any ground-disturbing or vegetation-removal activities.	City of Folsom.		

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a Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB) may be required before the start of construction that will impact any waters of the U.S. Any waters of the U.S. or jurisdictional wetlands that would be lost or disturbed should be replaced or rehabilitated on a "no-net-loss" basis in accordance with the USACE mitigation guidelines and the City of Folsom requirements. Habitat restoration, rehabilitation, and/or replacement should be at a location and by methods agreeable to the agencies. • If a 404 permit is required for the proposed project, then water quality concerns during construction would be addressed in the Section 401 water quality certification from the Regional Water Quality Control Board. A Stormwater Pollution Prevention Plan (SWPPP) would also be required during construction activities. SWPPPs are required in the issuance of a National Pollutant Discharge Elimination System (NPDES) construction discharge permit by the U.S. Environmental Protection Agency. Implementation of Best Management Practices (BMPs) during construction is standard in most SWPPPs and water quality certifications. Examples of BMPs include stockpiling of debris away from regulated wetlands and waterways; immediate removal of debris piles from the site during the rainy season; use of silt fencing and construction fencing around regulated waterways; and use of drip pans under work vehicles and containment of fuel waste throughout the site during construction. If the aquatic features are determined to not be subject to federal jurisdiction, then these features may still be subject to waste discharge requirements under the Porter-Cologne Water Quality Control Act. Section 13260(a) of the Porter-Cologne Water Quality Control Act (contained in the California Water Code) requires any person discharging waste or proposing to discharge waste, other than to a community sewer system, within any region that could affect the quality of the waters of the State (all surface and subsurface waters) to file a report of waste discharge. The discharge of dredge or fill material into the ditches may constitute a discharge of waste that could affect the quality of waters of the State. A report of waste discharge will be filed for				

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impacts to non-federal waters, if required. The reservoir and marsh areas may also be regulated by the California Department of Fish and Wildlife (CDFW) under Section 1600 of the California Fish and Game Code. CDFW asserts jurisdiction over native riparian habitat adjacent to aquatic features, including native trees over four inches in diameter at breast height (DBH). If an existing fish or wildlife resource may be substantially adversely affected by the activity, CDFW may propose reasonable measures that will allow the protection of those resources. If these measures are agreeable to the parties involved, they may enter into an agreement with CDFW identifying the approved activities and associated mitigation measures. Generally, CDFW recommends submitting an application for a Lake and Streambed Alteration Agreement (LSAA) for any work done within the lateral limit of water flow or the edge of riparian vegetation, whichever is greater.				
CULTURAL RESOURCES				
CUL-1: Accidental Discovery of Cultural Resources In the event that cultural resources are exposed during ground-disturbing activities, construction activities shall be halted within 100-feet of the discovery. Cultural resources could consist of, but are not limited to: stone, bone, wood, or shell artifacts, or features, including hearths, structural remains, or historic dumpsites. If the resources cannot be avoided during the remainder of construction, an archaeologist retained by the project Contractor, who meets the Secretary of the Interior's *Professional Qualifications Standards*, shall assess the resource and provide appropriate management recommendations. If the discovery proves to be National Registry of Historic Places (NRHP) or California Register of Historical Resources (CRHR)-eligible, additional documentation and analysis, such as data recovery excavation, may be warranted.	Immediately upon discovery.	Qualified Archaeologist; Project Contractor; City of Folsom.		
CUL-2: Accidental Discovery of Human Remains In the event of an accidental discovery or recognition of human remains, Public Resources Code (PRC) Section 5097.98 must be followed. Once project-related earthmoving begins and if there is a discovery or recognition of human remains, the	Immediately upon discovery.	Project Contractor; City of Folsom; Sacramento County Coroner.		

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project Contractor shall inform the City and the following steps shall be taken: 1. There shall be no further excavation or disturbance of the specific location, or any nearby area reasonably suspected to overlie adjacent human remains until the Sacramento County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains are Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours, and the NAHC shall identify the person or persons it believes to be the "most likely descendant" of the deceased Native American. The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains, and any associated grave goods as provided in PRC Section 5097.98, or 2. Where the following conditions occur, the landowner or their authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendent or on the project area in a location not subject to further subsurface disturbance: • The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the commission; • The descendent identified fails to make a recommendation; or, • The landowner or his authorized representative rejects the recommendation of the descendent, and the mediation by the NAHC fails to provide measures acceptable to the landowner.				

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GEOLOGY AND SOILS				
GEO-1: Avoid and Minimize Impacts to Paleontological Resources In the event paleontological or other geologically sensitive resources (such as fossils or fossil formations) are identified during any phase of project construction, all excavations within 100 feet of the find shall be temporarily halted until the find is examined by a qualified paleontologist retained by the project Contractor, in accordance with Society of Vertebrate Paleontology standards. The paleontologist shall notify the appropriate representative at the City of Folsom who shall coordinate with the paleontologist as to any necessary investigation of the find. If the find is determined to be significant under the California Environmental Quality Act (CEQA), the City shall implement those measures which may include avoidance, preservation in place, or other appropriate measures, as outlined in Public Resources Code (PRC) Section 21083.2.	Immediately upon discovery.	Qualified Paleontologist; Project Contractor; City of Folsom.		
TRIBAL CULTURAL RESOURCES				
TCR-1: Unanticipated Discovery of Tribal Cultural Resources. If suspected Tribal Cultural Resources (TCRs) are discovered during ground disturbing construction activities, all work shall cease within 50 feet of the find, or an agreed upon distance based on the project area and nature of the find. The project Contractor shall notify the City of the find. A Native American Representative from traditionally and culturally affiliated Native American Tribes that requested consultation on the project shall be immediately contacted by the City and invited to assess the significance of the find and make recommendations for further evaluation and treatment, as necessary. If deemed necessary by the City, a qualified cultural resources specialist, who meets the Secretary of Interior's Standards and Qualifications for Archaeology, may also assess the significance of the find in joint consultation with Native American Representatives to ensure that Tribal values are considered. Work at the discovery location shall not resume until the City, in consultation as appropriate and in good faith, determines that the discovery is either not a TCR, or has been subjected to culturally appropriate treatment, if avoidance and preservation cannot be	Immediately upon discovery.	Qualified Archaeologist; Project Contractor; Native American Representative; City of Folsom.		

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accommodated. When avoidance is infeasible, preservation in place is the preferred option for mitigation of TCRs under the California Environmental Quality Act (CEQA), and every effort shall be made to preserve the resources in place, including through project redesign, if feasible. 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, or returning objects to a location within the project area where they will not be subject to future impacts. Permanent curation of TCRs will not take place unless approved in writing by the California Native American Tribe that is traditionally and culturally affiliated with the project area. The contractor shall implement all 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 not limited to, facilitating the appropriate tribal treatment of the find, as necessary. Treatment that preserves or restores the cultural character and integrity of a TCR 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 52, have been satisfied.				