

Scotts Flat Dam Spillway Improvements Project
California Environmental Quality Act Initial
Study/Mitigated Negative Declaration
Second Administrative Draft

October 2026

Prepared for:
Nevada Irrigation District

Prepared by:
Stantec Consulting Services Inc.



SCOTTS FLAT DAM SPILLWAY IMPROVEMENTS PROJECT

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Acronyms and Abbreviations
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Acronyms and Abbreviations

AB	Assembly Bill
ACE	CDFW Terrestrial Connectivity, Areas of Connectivity
amsl	above mean sea level
Basin Plan	Sacramento River Basin and San Joaquin River Basin Water Quality Control Plan
BIOS	Biogeographic Information and Observation System
BMP	Best Management Practice
BP	Before Present
CAAQS	California Ambient Air Quality Standard
CalEEMod	California Emissions Estimator Model
CAL FIRE	California Department of Forestry and Fire Protection
CARB	California Air Resources Board
CCAA	California Clean Air Act
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
CH ₄	methane
CHRIS	California Historic Resources Information System
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
County	Nevada County
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
CRHR	California Register of Historical Resources
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
CWPP	Community Wildfire Protection Plan
dB	decibel
dBA	A-weighted decibel
DCH	Designated Critical Habitat
DPM	diesel particulate matter
DPS	Distinct Population Segment
DSOD	State Division of Safety of Dams
DTSC	Department of Toxic Substances Control
EAP	Energy Action Plan
EIR	Environmental Impact Report
EISA	Energy Independence and Security Act of 2007
EPA	U.S. Environmental Protection Agency

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EPCA	Energy and Policy Conservation Act
ESA	Environmentally Sensitive Area
FCAA	Federal Clean Air Act
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FESA	Federal Endangered Species Act
FHSZ	Fire Hazard Severity Zone
FGC	(California) Fish and Game Code
ft	feet
ft ²	square feet
FTA	Federal Transit Administration
General Plan	Nevada County General Plan
GHG	greenhouse gas
IS/MND	Initial Study/Mitigated Negative Declaration
Leq	equivalent continuous sound level
LSAA	Lake and Streambed Alteration Agreement
MCAB	Mountain Counties Air Basin
MCV	Manual of California Vegetation
MM	mitigation measure
MRTS	McCourtney Road Transfer Station
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCFD	Nevada County Consolidated Fire District
NCIC	North Central Information Center
NHTSA	National Highway Traffic Safety Administration
NID	Nevada Irrigation District
NO ₂	nitrogen dioxide
NOA	Naturally Occurring Asbestos
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NSAQMD	Northern Sierra Air Quality Management District
PERP	Portable Equipment Registration Program
PG&E	Pacific Gas & Electric Company
PM _{2.5}	particulate matter less than two and one-half micrometers in diameter
PM ₁₀	particulate matter less than 10 micrometers in diameter
PMF	Probable Maximum Flood
PRC	Public Resources Code
Proposed Project	Scotts Flat Dam Spillway Replacement Project
ROG	Reactive Organic Gases
RWQCB	Regional Water Quality Control Board
SAFE	Safer Affordable Fuel Efficient
SIP	State Implementation Plan

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SO ₂	sulfur dioxide
SPCCP	Spill Prevention Control and Countermeasure Plan
SRA	State Responsibility Area
SSC	California Species of Special Concern
Stantec	Stantec Consulting Services Inc.
State	California
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminants
TCR	Tribal Cultural Resources
UAIC	United Auburn Indian Community
U.S.	United States
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VdB	vibration decibel
WEAT	Worker Environmental Awareness Training
WQC	Water Quality Certification
WOTS	Waters of the State
WOTUS	waters of the US

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Introduction
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1.0 Introduction

The Scotts Flat Lake zoned earthen and rock-fill dam¹ was constructed in 1948 and raised to increase capacity in 1964. It impounds Deer Creek to create the reservoir with a capacity of 49,000 acre-feet. At 175 feet (ft) above streambed, the dam low level outlet and spillway release water into Deer Creek. The concrete spillway chute slabs have experienced repetitive concrete spall damage² since its construction. Due to large flood flows in early 2017, several spalls occurred and were quickly repaired to restore full spillway function. Field explorations were performed to characterize the subsurface conditions, and deficiencies were found at the Scotts Flat Spillway including insufficient chute flow capacity and erosion potential at the lower plunge pool, resulting in the need for replacement of the spillway upper plunge pool³, chute, and lower plunge pool (i.e. the Proposed Project).

Nevada Irrigation District (NID) is proposing to replace the existing Scotts Flat Spillway to comply with federal and California (State) safety requirements. The Federal Energy Regulatory Commission (FERC) and the State Division of Safety of Dams (DSOD) required a focused assessment of the spillway at Scotts Flat Dam which was prompted by the spillway incident at Oroville Dam in 2017. NID conducted the spillway focused assessments and concluded that the spillway had inadequate capacity, potential for erosion, inadequate drainage, and concrete deterioration. FERC and DSOD reviewed the findings and required NID to improve the spillway to mitigate these issues.

Specifically, NID is proposing to replace the existing Scotts Flat Spillway upper plunge pool, chute, and lower plunge pool to meet both federal and state requirements to accommodate the updated Probable Maximum Flood (PMF) and reduce erosion risks. The upper crest structure controlling flow into the spillway was analyzed in 2021 and found to meet DSOD requirements, and therefore no work is being performed on the upper crest structure.

An Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared to evaluate the Proposed Project for potential environmental effects in compliance with the California Environmental Quality Act (CEQA). NID is the Lead Agency under CEQA and has the principal responsibility for carrying out or approving a project that may have an effect on the environment. The IS/MND discloses for public review the assessment of potentially significant impacts and related applicable mitigation to reduce impacts to less-than-significant levels. The IS/MND has been prepared in accordance with CEQA, Public Resources Code (PRC) Section 21000 et seq., and the State CEQA Guidelines, California Code of Regulations, Title 14, Section 15000 et seq.

1.1 Project Title

Nevada Irrigation District Scotts Flat Spillway Improvements Project (Proposed Project).

¹ A “zoned” earth and rockfill embankment is a type of dam built from natural materials (soil and rock), arranged in engineered layers (“zones”), each serving a function, including a waterproof core in the middle, stable strong rock shells on the outside, and drainages layers in between to control seepage.

² Concrete spall damage is a form of deterioration where the outer layer of concrete separates from the main structure, leading to visible defects such as flaking or peeling surfaces.

³ The upper plunge pool is included in this analysis to be comprehensive; however, its inclusion in final design and construction is contingent upon DSOD and FERC requirements.

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1.2 Lead Agency

Nevada Irrigation District
1036 W. Main Street
Grass Valley, California 95945

1.3 Lead Agency Contact

Gabe Aronow, P.E., Director of Engineering
Nevada Irrigation District
1036 W. Main Street
Grass Valley, California 95945
Phone: 530-271-6866
Email: aronowg@nidwater.com

1.4 Project Location

The Proposed Project is located in Nevada County (County), California approximately four miles east of Nevada City in Section 11 of Township 15, Range 9 East of Mt. Diablo Meridian and Baseline. The Proposed Project area is approximately 3,100 ft above mean sea level (amsl) and is adjacent to Scotts Flat Reservoir (Figure 1-1).

1.5 Surrounding Land Uses and Setting

The Proposed Project area is located on the western perimeter of Scotts Flat Reservoir and is primarily surrounded by dense forest (Figure 1-2). The Proposed Project area and immediate vicinity is used by the public for a variety of recreational uses including camping, hiking and biking trails, boating, swimming, fishing, and picnicking.

1.6 Summary of Project

The Proposed Project would involve replacement of the existing Scotts Flat Spillway chute and both the upper and lower plunge pools to pass the updated PMF flows up to 23,990 cubic feet per second (cfs).

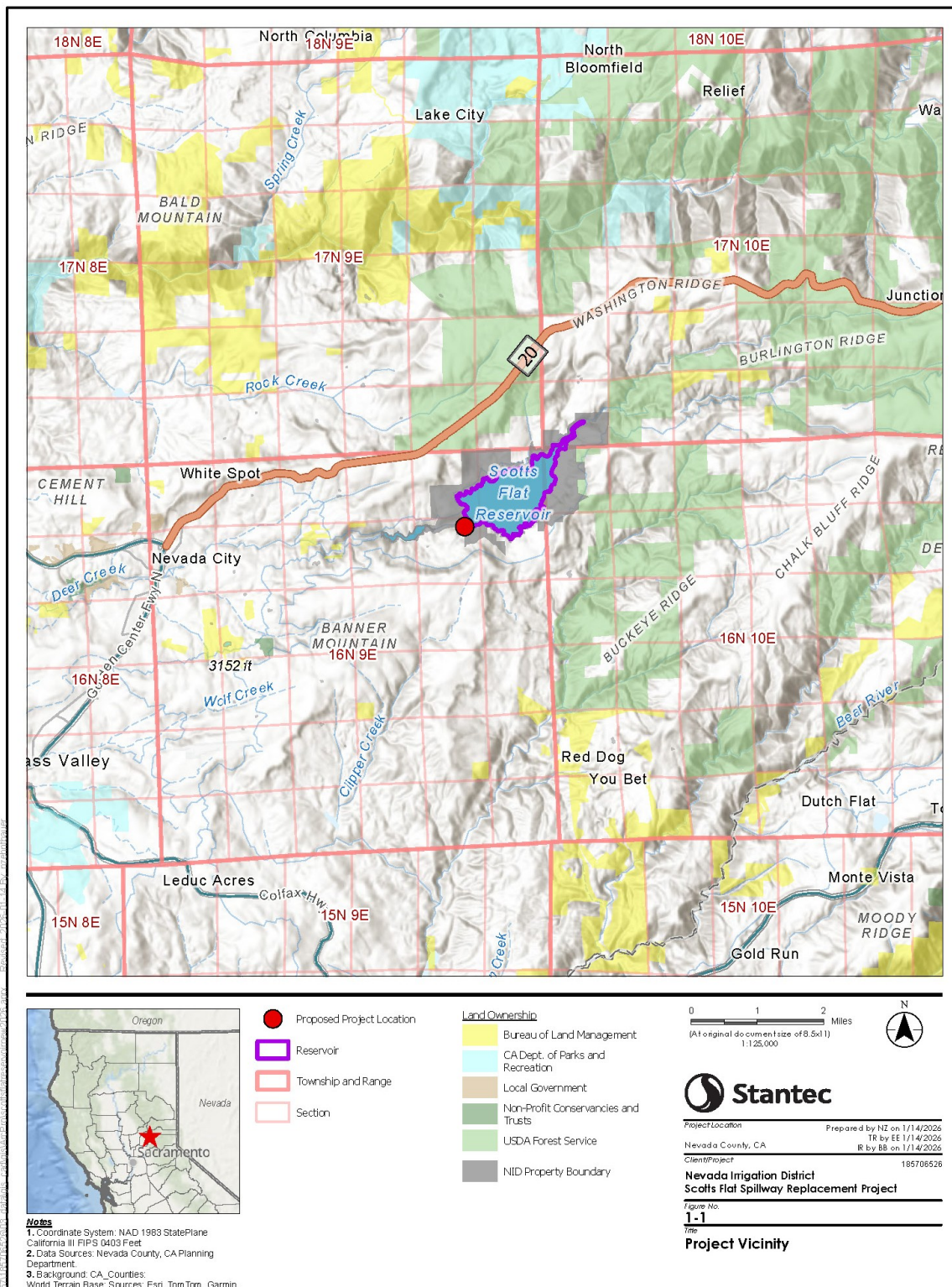
1.7 General Plan Designation and Zoning

The Proposed Project area has a Nevada County General Plan (General Plan) zoning designation of “public” (Nevada County 1996, as amended, Nevada County 2024).

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Figure 1-1 Project Vicinity

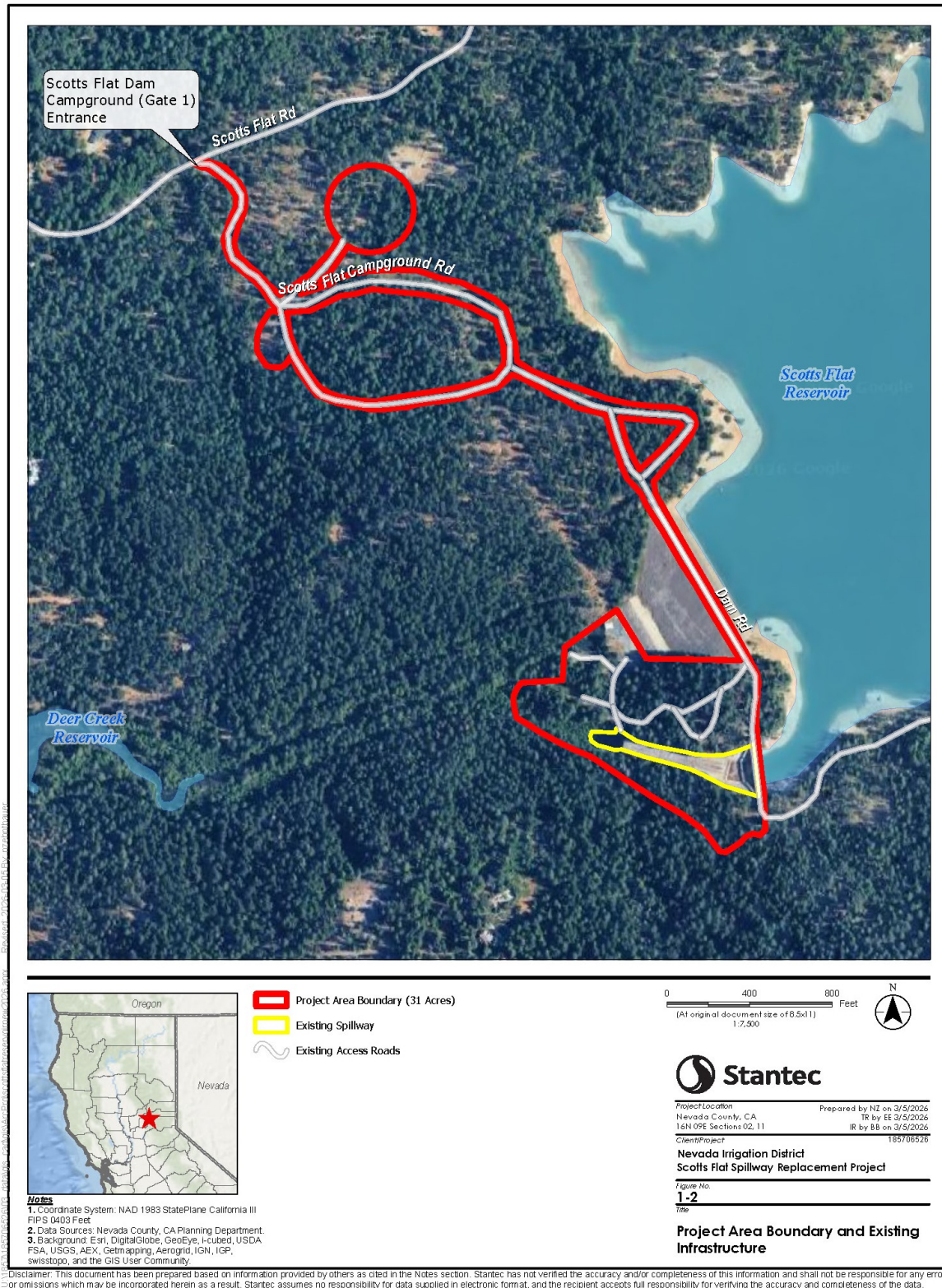


Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

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Figure 1-2 Project Area Boundary and Existing Infrastructure



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1.8 CEQA and Agency Review

CEQA is a California law that requires state and local agencies to evaluate and disclose the potential environmental impacts of projects before approval. NID is the Lead Agency under CEQA for the preparation of this IS/MND. CEQA Guidelines (Section 21067) define the Lead Agency as, “the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment.” Approval of the Proposed Project is considered a public agency discretionary action and, therefore, is subject to compliance with CEQA.

The purpose of this document is to disclose the potential environmental consequences and related mitigation measures (MM) for implementing the Project. The public, residents, and other local and State of California (State) resource agencies will be given the opportunity to review and comment on this document during a 30-day public review period. Comments received during the review period will be considered by the NID Board to inform decisions related to the approval of this IS/MND and the Proposed Project.

The public review period will commence on October 6, 2026, and end on November 5, 2026, pursuant to CEQA Guidelines Section 15105. Written comments (including via email) must be received by 5:00 p.m. on November 5, 2026. Written comments should be addressed to:

Attn: Kris Stepanian, Board Secretary
Nevada Irrigation District
1036 W. Main Street
Grass Valley, California 95945
Phone: 530-271-6822
Email: stepaniank@nidwater.com

The IS/MND and supporting documents are available at the address listed above, at the Nevada County Clerk's office at 950 Maidu Avenue, Suite 210, Nevada City, CA 95959, and at the Grass Valley Library at 207 Mill Street, Grass Valley, CA 95945. An electronic copy of the IS/MND is also available online at: [Environmental Compliance Documents - Nevada Irrigation District](#).

1.9 Scope of this Initial Study

As the Lead Agency under CEQA, NID is responsible for compliance with the environmental review process prescribed by the CEQA Guidelines. This IS/MND focuses on the environmental issues identified as potentially significant in the CEQA Initial Study checklist completed pursuant to the State CEQA Guidelines. This IS/MND evaluates the potentially significant effects from the Proposed Project on the environment and identifies mitigation measures (MMs).

1.10 Document Organization

This IS/MND is organized as follows:

- **Section 1.0: Introduction.** This section introduces the Proposed Project and describes the purpose and organization of this document.

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- **Section 2.0: Project Description.** This section describes the purpose and need for the Proposed Project, identifies the Project objectives, and provides a detailed description of the Project.
- **Section 3.0: Environmental Checklist and Environmental Evaluation.** This section presents the analysis of potential environmental impacts using the CEQA Environmental Checklist and determines for each resource topic whether the Proposed Project would result in no impact, a less-than-significant impact, a less-than-significant impact with mitigation incorporated, or a potentially significant impact. If impacts are determined to be potentially significant after incorporation of applicable MMs, an Environmental Impact Report (EIR) would be required. However, for this Proposed Project, MMs have been incorporated, where needed, that would reduce all potentially significant impacts to a less-than-significant level.
- **Section 4.0: List of Preparers.** This section identifies the report preparers.
- **Section 5.0: References.** This section lists the references used in preparing this IS/MND.

1.11 Potential Permits Required

The following regulatory permits may be required prior to the start of construction activities associated with implementation of the Proposed Project:

- Clean Water Act (CWA), Section 404, Nationwide Permit 17
- CWA Section 401, Water Quality Certification (WQC)
- California Department of Fish and Wildlife (CDFW) Lake and Streambed Alteration Agreement, California Fish and Game Code (FGC) Section 1602
- CWA Section 402, National Pollutant Discharge Elimination System (NPDES) General Construction Permit
- FERC Exemption No. P-5930 Amendment Order

Additionally, documentation and verification of compliance with the following regulations will be completed:

- Federal Endangered Species Act (FESA) and California Endangered Species Act (CESA)
- National Historic Preservation Act Section 106

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2.0 Project Description

The Proposed Project involves the replacement of the existing Scotts Flat Spillway trapezoidal chute with a rectangular chute (i.e., new chute floor with vertical side walls) and a new subdrain system along with a flip bucket terminal structure. The upper plunge pool would be removed and replaced, the lower plunge pool would be excavated, and new rock armoring would be installed, all to meet the updated PMF flow of up to 23,990 cfs and help with erosion and scour protection. During construction of the Proposed Project, there would be no changes to existing reservoir level or stream releases. This is because construction would occur during the dry season when only the unimpaired low level outlet is in use, not the spillway. During construction, prior to each rainy season, the construction site would be stabilized, and repairs paused such that the spillway can pass flooding flows should it be necessary. Additionally, post-construction operations would be the same as current reservoir, release, and hydropower operations; no changes are proposed. For public safety during active construction, public access and recreation activities would not be permitted in the Proposed Project area but could resume at the end of each construction season when the site is stabilized. NID public noticing to the community for such construction-related closures began in 2025 and has continued through 2026.

The new spillway chute, upper plunge pool, and lower plunge pool improvements would be located within the same approximate footprint as the existing facility. The total footprint for the Proposed Project (which includes the work areas and all staging/access) occupies approximately 31 acres.

The Proposed Project start date is currently anticipated to be fall of 2027; however, this is contingent upon FERC and DSOD design and regulatory approval timing as well as the timing of other federal and state regulatory agency approvals.

The start date is also dependent on funding availability. Additional schedule details are included in Section 2.4 of this document.

2.1 Project Objectives

The Proposed Project includes the following objectives for FERC compliance:

- Replace the existing spillway chute and upper and lower plunge pools to increase capacity for the updated PMF flows.
- Modernize the spillway with design features that reduce the potential for slab jacking, provide a modern underdrain system, provide energy dissipation, and meet strength and stability requirements.
- Reduce erosion risks along the spillway.

2.2 Project Components

The Proposed Project entails four phases, currently estimated to occur over three to four years. The current phasing estimate is as follows; however, the exact phasing order and timing may be adjusted depending on construction efficiency, contractor means and methods, construction constraints, and weather conditions.

- Phase 1: Site Preparation (Access and Staging)

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- Phase 2: Upper Plunge Pool and Upper Spillway Chute Replacement, and Site Stabilization
- Phase 3: Middle Spillway Chute Replacement and Site Stabilization
- Phase 4: Lower Spillway Chute and Lower Plunge Pool Replacement, and Final Site Stabilization

2.2.1 Phase 1: Site Preparation (Access and Staging)

The first phase of the Proposed Project would begin with preparing access routes and staging areas for construction vehicle access and to deliver materials and haul away debris. Given existing access roads would be utilized to the maximum extent feasible, the site preparation phase would include closing public access to the camping area nearest the dam, Scotts Flat Lake Campground Gate 1 (Gate 1), for the duration of the Proposed Project⁴. Additionally, where access needs to be enhanced beyond exiting roadways, tree removal and grading would occur.

Most of the work area would be accessed from the north side of the spillway, through Gate 1. Access roads on the north side of the spillway include the existing paved Gate 1 roads and the Dam Road. For work conducted on the south side of the dam, Pasquale Road and the Dam Road may be used to limit heavy equipment on the spillway bridge and to deliver equipment to the upper spillway chute, lower spillway chute, and both plunge pools. Existing and proposed access roads and staging areas are described in further detail below and depicted in Figure 2-1:

- **New Access Road A:** Located midway down the north side of the spillway chute and adjacent to Staging Area 2, this short access road (approximately 30 ft by 100 ft) would provide equipment access from the north to the middle of the chute. Upland tree removal and grading is necessary.
- **New Access Road B:** Located at the western edge of the Proposed Project area, this proposed road (approximately 20 ft by 320 ft) is an existing access road, and when upgraded to create new access, would connect to Staging Area 4 and lower plunge pool. Upland and potential riparian tree removal, as well as grading is necessary.
- **New Access Road C:** Located on the south side of the spillway chute, this road would provide access to the upper spillway chute on the south side of the spillway and would be approximately 20 ft wide and total approximately 650 ft in length. Upland tree removal and grading is necessary.
- **Pasquale Road and Dam Road:** Located on the south side of the spillway chute, site access via the existing paved Pasquale Road and gravel Dam Road may be required for Project area access on the south side to limit heavy equipment on the spillway bridge. No improvements are planned for these roads.
- **Scotts Flat Road:** Paved, two-lane road located on the north side of the spillway. Scotts Flat Road is maintained by Nevada County and connects State Highway (Hwy) 20 to the construction access at Gate 1, and residential and recreation access at and around Gate 2. No construction-related enhancements are required for this road; however, post-construction road conditions would be reviewed and repaired to pre-existing conditions in coordination with the County.

⁴ Full Gate 1 campground closure for up to three summer seasons was analyzed in this IS/MND as a worst-case scenario. However, contingent upon the construction schedule, shorter duration closures may be feasible, when Gate 1 conditions are safe (i.e. haul trucks and construction activities don't put campers at risk).

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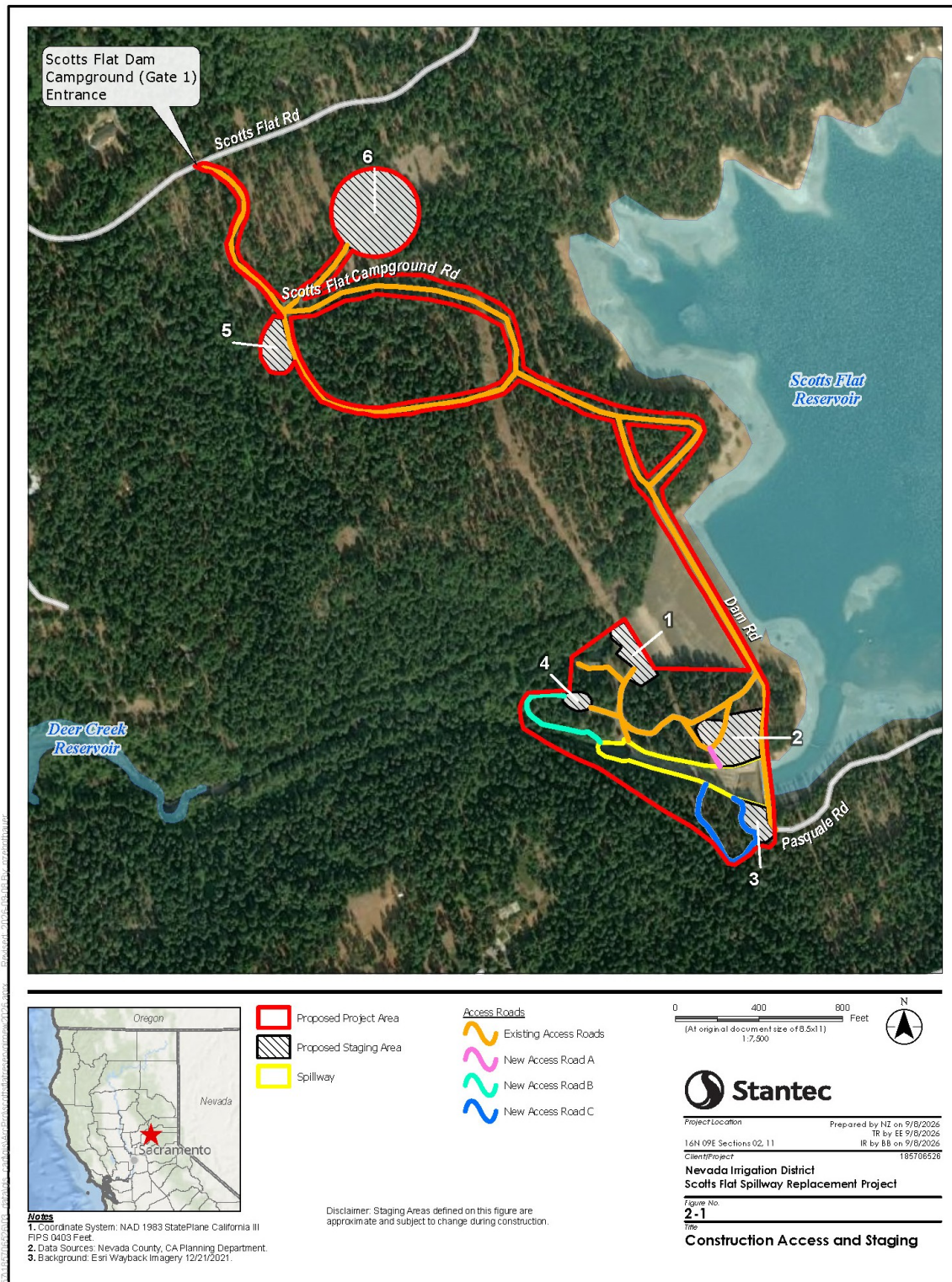
In addition to existing and upgraded access roads, six staging areas are proposed and would be utilized for the Proposed Project (Figure 2-1):

- **Staging Area 1:** Located within an existing parking lot at the base of the dam, this staging area is approximately 30,000 square feet (ft²) (0.7 acres) and does not require tree removal or grading.
- **Staging Area 2:** Located midway down an existing maintenance road along the north side of the spillway chute, this staging area is approximately 63,000 ft² (1.4 acres). To prepare the site, this staging area would likely require grading and tree removal.
- **Staging Area 3:** Located on the south side of the spillway, this staging area is approximately 20,000 ft² (0.5 acres) in size. Grading and tree removal would be required to prepare the site.
- **Staging Area 4:** Located north of the lower plunge pool, this staging area is approximately 10,000 ft² (0.2 acres) in size. Grading and tree removal would be required to prepare the site.
- **Staging Area 5:** Located on the west side of the existing campground access road, this staging area is approximately 29,000 ft² (0.7 acres). Currently this site is mostly clear of vegetation; however, grading and tree removal may be required.
- **Staging Area 6:** Located within the north region of the Proposed Project area, this staging area includes approximately 136,000 ft² (3.1 acres). Currently this site includes a mix of existing roads and previously cleared areas used as a Gate 1 group camping area. This area is mostly clear of vegetation; however, some grading and tree removal may be required.

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Figure 2-1 Construction Access and Staging



Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

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2.2.2 Phase 2⁵: Upper Plunge Pool and Upper Spillway Chute Replacement, and Site Stabilization

Replacement of the upper plunge pool and upper spillway chute would begin once the annual spill has ceased (typically between April and June). The replacement of the existing upper plunge pool (Photo 2-1) would entail positioning equipment, staging materials, demolishing and excavating portions of the upper plunge pool, and reconstructing it. The upper plunge pool would tie back into the upper weir without altering the weir itself or the bridge. Because there would be no impacts to the weir, reservoir operations would remain the same and only temporary level management may occur during construction. The new upper plunge pool would include an improved subdrainage system and replacement of the lower weir, separating the upper plunge pool from the chute.

Replacing the upper spillway chute would entail positioning equipment, staging materials, demolishing and excavating the upper chute. Once removed the old spillway chute would be replaced with a rectangular chute featuring rock anchors, placing new concrete slabs and vertical side walls, and a new subdrain system. The upper spillway chute starts at approximately 100 ft wide and transitions down to the lower chute which is 50 ft wide. A temporary connection from the new rectangular chute to the existing trapezoidal chute would be installed to allow for spills between construction seasons during winter and spring months, depending on the final phase sequence. The site would also be stabilized using best management practices (BMPs) for sediment and erosion control, in accordance with a Project-specific stormwater pollution prevention plan (SWPPP), between construction seasons. The upper spillway chute and cross section are depicted in Photo 2-1 and Figure 2-2.

⁵ The order of Phases 2, 3 and 4 will be determined with Contractor input to maximize construction efficiency. However, the anticipated phases would start with the upper plunge pool and chute and conclude with the lower plunge pool.

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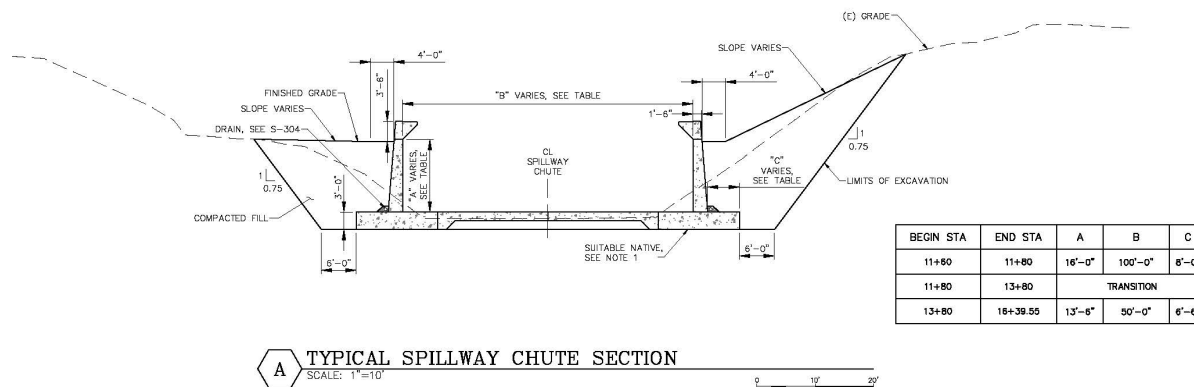


Photo 2-11: Upper Plunge Pool and Upper Spillway Chute

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Figure 2-2 Proposed Spillway Excavation Cross Section



2.2.3 Phase 3⁶: Middle Spillway Chute Replacement and Site Stabilization

During Phase 3, the remainder of the upper spillway chute, the middle spillway chute, and possibly some of the lower spillway chute would be replaced using methods as described for the upper chute in Section 2.2.2 and the lower chute in Section 2.2.4. Similar to the upper spillway chute replacement work, the new chute would be tied into existing structures and the site would be stabilized at the end of the construction season, such that normal operations of the spillway can continue during the winter season.

2.2.4 Phase 4³: Lower Spillway Chute and Lower Plunge Pool Replacement, and Final Site Stabilization

Replacement of the lower spillway chute, including the flip bucket, would begin once the annual spill has ceased (typically between April and June). The lower spillway chute replacement would occur in a manner like that of the upper spillway chute, with slightly narrower dimensions. A drill rig would be required to construct the secant pile wall, which would act as a deep foundation for the flip bucket along with a cutoff to prevent erosion and headcutting back toward the dam. Access to the lower spillway chute would primarily be via access roads to the north of the spillway. The lower plunge pool (Photo 2-2) often retains water despite the lack of summer flows down the spillway chute. Therefore, the lower plunge pool replacement would entail dewatering prior to excavation, rip rap removal, and re-armoring by replacing rip rap. Dewatering the lower plunge pool to the downstream channel connecting to Deer Creek would be required (Figure 2-3) and would be conducted in compliance with the appropriate NPDES permit. Additionally, at the end of each phase, including this final phase, the Proposed Project site stabilization for all construction areas would be completed and reviewed in accordance with the Project-specific SWPPP. Finalizing the Proposed Project would also include placement of new piezometers to monitor subsurface water levels. The piezometers would be installed primarily at two locations, one near the upper plunge pool and a second near the downstream end of the lower spillway chute.

⁶ The order of Phases 2, 3 and 4 will be determined with Contractor input to maximize construction efficiency. However, the anticipated phases would start with the upper plunge pool and conclude with the lower plunge pool.

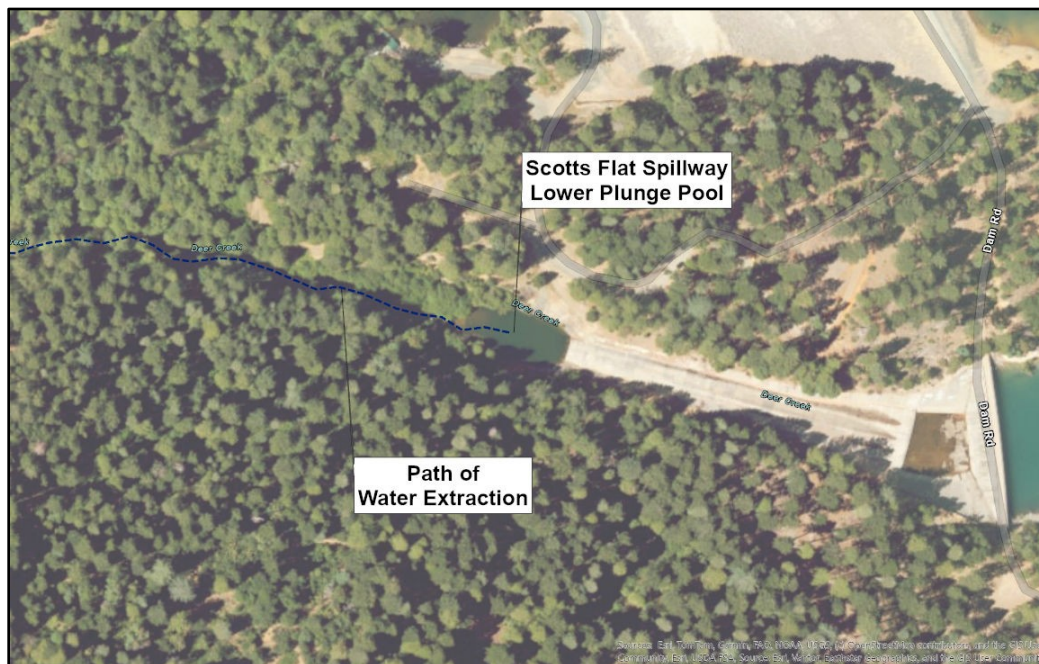
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Photo 2-2: Existing Lower Plunge Pool

Figure 2-3 Plunge Pool Dewatering



2.3 Construction Equipment

The Proposed Project would require the use of construction equipment typically associated with spillway construction activities. Construction equipment for the Proposed Project would depend on the selected contractor's planned operations but may include the equipment listed in Table 2-1.

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Table 2-1 Estimated Construction Equipment

Air compressors	Excavation/Vacuum Trailers and Trucks	Scrapers
Asphalt trucks	Excavators	Screens
Backhoes	Forklifts	Small engine tools (post drivers, pneumatic hammers, etc.)
Bulldozers	Front-end loaders	Sweepers
Communications and safety equipment	Generators	Trailers
Compactors	Graders	Vehicle maintenance truck
Concrete pumper	Highway trucks	Water Tanks
Concrete trucks	Light Towers	Water trucks
Conveyors	Manlifts	Watercraft
Cranes	Pickup trucks	Welding equipment
Drilling Rig / Equipment	Pumps and piping	Miscellaneous equipment customary to the mechanical and electrical crafts, and vehicles used to deliver equipment and material
Erosion control materials	Rollers	

2.4 Construction Schedule

The Proposed Project start date is currently anticipated to be fall of 2027 with the beginning of Phase 1, site preparation, and be completed by December 2030, or later, depending on regulatory approvals. Construction activities are estimated to occur primarily between April and December each year, with the possibility of non-spillway work (work outside the channel) occurring throughout the year. The start of spillway construction would be determined by the end of the winter rains and spillway use, which is historically between April and June. Construction in the spillway itself would not occur when the need for use of the spillway is possible, typically between December and June, to allow for normal operation of the spillway. The timing of Phase 1 activities is not contingent upon avoiding spill season, but it is likely to occur during the fall. The sequential order of the spillway replacement components between Phases 2–4 may be adjusted to accommodate construction activities, as described in the preceding sections.

Table 2-2 Estimated Construction Schedule¹

Phase	Project Construction Activities	Estimated Year(s) ²
1	Site Preparation (Access and Staging)	2027–2028
2	Upper Plunge Pool and Upper Spillway Chute Replacement, and Site Stabilization	2028–2029
3	Middle Spillway Chute Replacement and Site Stabilization	2029–2030
4	Lower Spillway Chute and Lower Plunge Pool Replacement and Final Site Stabilization	2030

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Phase	Project Construction Activities	Estimated Year(s) ²
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¹ The order of the noted construction activities may vary from Phases shown above and would be determined with Contractor input to maximize construction efficiency. However, the anticipated order is as presented.

² The estimated year and the duration of each Phase may be delayed / extended based on Project regulatory approvals, Contractor input during construction, and changed field conditions. The start date is also dependent on funding availability.

2.5 Operations and Maintenance

2.5.1 Operations During Construction

During construction, access to the dam and spillway area, and the Gate 1 Campground would be closed for up to 4 years for public safety. Upon Project completion the campground would be reopened. Limited changes to operation and maintenance of NID facilities are anticipated with the Proposed Project. Specifically, construction would occur each year such that the spillway would be repaired and operable for normal winter operations.

2.5.2 Long-term Operation and Maintenance

Long-term operation and maintenance would not change with the Proposed Project. Operation and maintenance of the Proposed Project, including reservoir levels, stream flows, and hydropower generation, during construction, between construction seasons, and post-construction would not change from the current (baseline) conditions. The Proposed Project would not require changes in the operation of the spillway or upper plunge pool and thus would not alter the reservoir elevation or fluctuation.. The Proposed Project would not involve adjustments to the flow to the powerhouse. The Proposed Project would increase the capacity of the spillway chute by widening and deepening the facility and changing the side walls from inclined to vertical. As a result of the spillway improvements, the PMF would no longer overtop the existing spillway walls and instead, the new spillway would safely pass flows downstream as designed.

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3.0 Impact Analysis

This Initial Study/Mitigated Negative Declaration uses the following terms to describe the level of significance of adverse impacts and these terms are defined as follows:

- **No Impact:** An impact that would result in no adverse changes to the environment.
- **Less-than-significant Impact:** An impact that is potentially adverse but does not exceed the thresholds of significance as identified in the impact discussions. Less-than-significant impacts do not require mitigation.
- **Less-than-significant Impact with Mitigation:** An environmental effect that may cause a substantial adverse change in the environment without mitigation, but which is reduced to a level that is less-than-significant with mitigation identified in the Initial Study.
- **Potentially Significant Impact:** An environmental effect that may cause a substantial adverse change in the environment; either additional information is needed regarding the extent of the impact to make the significance determination, or the impact would or could cause a substantial adverse change in the environment. A finding of a potentially significant impact would result in the determination to prepare an EIR.

3.1 Aesthetics

3.1.1 Setting

The Proposed Project is located in the western foothills of the Sierra Nevada mountains in Nevada County, approximately four miles east of Nevada City, in an area dominated by Sierran mixed conifer habitat. Land uses within the Project area consist largely of rural and open space, with scattered development.

A scenic vista is generally defined as an expansive view of highly valued landscape observable from a publicly accessible vantage point. The Nevada County General Plan considers land use patterns and areas preserved as open space to contribute significantly to the County's aesthetic quality and preservation of scenic values (Nevada County 1996, as amended). Scotts Flat Dam, which is typically open to pedestrian traffic, provides a public vantage point for scenic views of both the reservoir upstream and the river valley downstream of the dam. Other viewers of the Project area could include campers at Scotts Flat Main Gate Campground and motorists passing through or near the area.

3.1.2 Impact Analysis

I. AESTHETICS Would the Project:	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporation	Less-Than- Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock				X

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I. AESTHETICS Would the Project:	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporation	Less-Than- Significant Impact	No Impact
outcroppings, and historic buildings within a state scenic highway?				
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?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X

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

Finding: Less-Than-Significant

Construction and Operation

Although scenic vistas are not explicitly defined in the County General Plan, land use patterns and areas preserved as open space and views through scenic corridors are considered significant scenic resources within the County (Nevada County 1996, as amended). Users, including recreationists (i.e. campers and hikers) and motorists would experience varying degrees of temporary visual resource change during construction. Campers at the Scotts Flat Main Gate Campground (formerly Scotts Flat Lake Campground / Gate 2) would have the highest viewer sensitivity because their views are generally stationary, however, unlike residential viewers, campers are transitional and generally stay for no more than a week's time. Therefore, campers' views of construction activities would be sporadic, depending on the specific construction activity occurring and location within campground. It should be noted that except for the spillway crest where no work will occur, work on the plunge pools and chute would not be visible from Scotts Flat Main Gate Campground.

Hikers and motorists within the area could have passing views of construction activities and staging areas, however these views would be brief as the pass by the area and the dense tree, vegetation, and topography of the area would limit direct views of construction activities within the Proposed Project area. While construction activities and vehicles may temporarily disrupt views of scenic resources in the Proposed Project area, the overall nature and view scape of the area would be preserved. Post-construction in the Proposed Project area would be regraded and stabilized, and operationally there would be no change from existing conditions. Therefore, construction impacts of the Proposed Project related to scenic vistas would be less-than-significant.

b) *Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway?*

Finding: No Impact

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Construction and Operation

According to the Caltrans list of officially designated and eligible State Scenic Highways, 41 miles on Route 49 from the Yuba County line to Yuba Summit and 6 miles from Skillman Flat Campground on Highway 20 to one-half mile east of Lowell Hill Road are designated State Scenic Highways (Caltrans 2018). These two areas are both outside the Proposed Project area. Due to the densely forested nature of the area and distance of these stretches of designated state scenic highway from the Project area (5–10 miles), there would be no impact to scenic resources within a state scenic highway.

- c) ***Would the Project 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 points). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?***

Finding: Less-than-significant

Construction

The Proposed Project is located in a rural area that is surrounded by recreational uses and densely vegetated areas. Construction of the Proposed Project would result in short-term impacts to the existing visual character and quality of the Project area through the use of heavy equipment and storage of materials in staging areas. During construction, excavated areas, stockpiled soils, and other materials would temporarily contribute to degradation of the scenic quality/visual landscape of the area. Depending on location, in some instances, views of Proposed Project construction would be at least partially screened by existing topography of the area and the surrounding trees and shrubs. Construction activities would occur during the dry season, roughly April through December, for four years.

As discussed under item 'a' above, typical views within the Proposed Project area could be negatively affected by construction activities, particularly for campers in the area because they have more stationary and fixed views, for potentially up to a week's time. However, for safety reasons the campground nearest the construction area will be closed and the majority of the construction will be below the dam out of site from recreationalists at and near lake level. The existing trees and topography within the area would limit direct views of the construction activities. Hikers and motorist views of construction activities would be less impacted by visual changes in the environment from construction due to movement throughout the Project area and distance from construction activities. Therefore, since the existing visual character and quality of the area would not be substantially affected for these viewer groups, impacts would be less-than-significant.

Operation

Given the nature of the landscape, removing vegetation within the Project area would not adversely impact the scenic quality of public views, because the area would continue to remain dominated by dense vegetation and forestlands beyond the spillway area. Furthermore, most vegetation removal would align with ongoing fuel load management activities around the lake and occur in areas that are not easily accessible to the public, thus are unlikely to be visible from public vantage points. The existing wooded, reservoir infrastructure, and fuel load managed character of the area would remain intact. Therefore,

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because long-term changes would not substantially affect the existing visual character within and surrounding area, this impact is considered less-than-significant

d) *Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

Finding: No Impact

Construction and Operation

Construction of the Proposed Project is not anticipated to involve nighttime work and therefore, there would be no construction impacts related to creation of new sources of substantial light or glare that could adversely affect nighttime views in the area. While there may be light used to mobilize for early morning concrete placement while it's cool, once constructed, there would be no additional lighting or glare introduced to the area. Therefore, there would be limited construction and no operational impacts associated with light or glare.

3.1.3 Mitigation Measures

No mitigation is required.

3.2 Agricultural and Forestry Resources

3.2.1 Setting

The Proposed Project is not on land considered Farmland of Importance at the state or local level, according to the Farmland Mapping and Monitoring Program of the California Resources Agency (California Department of Conservation 2022). The Proposed Project area is not restricted under a Williamson Act Contract (California Department of Conservation 2023). The Proposed Project area has a Nevada County General Plan and zoning designation of public, which makes up approximately 30 percent of the County (Nevada County 2014).

3.2.2 Impact Analysis

II. AGRICULTURAL AND FORESTRY RESOURCES	Potentially Significant Impact	Less-than-significant with Mitigation Incorporation	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?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?				X

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II. AGRICULTURAL AND FORESTRY RESOURCES Would the Project:	Potentially Significant Impact	Less-than-significant with Mitigation Incorporation	Less-than-significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220(g)), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

- a) ***Would the Project 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?***

Finding: No Impact

Construction and Operation

As mentioned above in the setting discussion, the land within and adjacent to the Proposed Project site is not designated as Farmland of Importance at the state or local level. Thus, no conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance would result from the construction or operation of the Proposed Project. No impact would occur.

- b) ***Would the Project conflict with existing zoning for agricultural use or a Williamson Act Contract?***

Finding: Less-than-significant

The land within the Proposed Project site are not zoned for agriculture use. The site and surrounding parcels are zoned as Public (P). The Proposed Project site and surrounding land is not under Williamson Act Contract. No impact would occur.

- c/d) ***Would the Project conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220(g)), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? Would the Project result in the loss of forest land or conversion of forest land to non-forest use?***

Finding: No Impact

Construction and Operation

There are no lands within, or adjacent to, the Proposed Project site that are zoned as forestland, timberland, or timberland zoned Timberland Production as defined by the PRC or the Government Code.

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According to the Nevada County Zoning Maps, the Proposed Project area and immediately adjacent lands are zoned as Public (Nevada County 2015, Nevada County 2026). Therefore, the Proposed Project would not result in a conflict with existing zoning regarding forest land or timberland and no loss of forest land or conversion of forest land to non-forest would occur. No impact would occur.

- e) ***Would the Project 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?***

Finding: No Impact

Construction and Operation

The Proposed Project does not involve any changes or alterations to the existing environment that could result in the conversion of farmland to non-agricultural use as no farmland exists in the immediate or surrounding area of the Proposed Project. Definition of forestland is based on the capability of the land to support at least 10% native tree cover under natural conditions. The Proposed Project capitalizes existing access roads and laydown areas and is focused on replacing the spillway in the same approximate footprint. Therefore, the Proposed Project footprint is not considered to be located on forestland; rather, it is primarily located on existing water and hydropower infrastructure and access ways and will not result in the conversion of forestland to non-forestland.

3.2.3 Mitigation Measures

No mitigation is required.

3.3 Air Quality

3.3.1 Setting

The Proposed Project is in Nevada County, in the Mountain Counties Air Basin (MCAB), which includes Plumas, Sierra, Nevada, Placer, El Dorado, Amador, Calaveras, Tuolumne, and Mariposa counties. Generally, the MCAB has a Mediterranean climate consisting of hot, dry summers and cool, rainy winters. However, the micro-climate differs with elevation and distance to the mountain ranges of the Sierra Nevada with the variability in terrain making it possible for different climates to exist in relatively close proximity. The patterns of mountains and hills create a wide variation in rainfall, temperature, and localized winds throughout the basin. The western portions of the basin slope relatively gradually, with deep river canyons running from southwest to northeast toward the Sierra Nevada.

Air quality in the Proposed Project vicinity is affected by various emission sources (e.g., mobile vehicles along Highway 20 and distant roadways) and atmospheric conditions such as wind speed, wind direction, temperature, and rainfall, as well as geography. Air quality in western Nevada County is also influenced by pollutants transported to the area from the Sacramento Metropolitan Area and the San Francisco Bay Area.

3.3.1.1 Criteria Air Pollutants

Concentrations of ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), respirable particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), and lead are used as indicators of ambient air

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quality conditions. Because these are the most prevalent air pollutants known to be harmful to human health and extensive health effects criteria documents are available, they are commonly referred to as “criteria air pollutants.” Federal and state standards have been set for each criteria air pollutant, referred to as the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). As shown in **Table 3.3-1**, the MCAB is within an area that is designated as nonattainment for federal and state O₃ standards, nonattainment for the federal PM_{2.5}, and nonattainment for state PM₁₀.

Table 3.3-1 Nevada County Area Designations for State and National Ambient Air Quality

Criteria Pollutants	State Designation	National Designation
Ozone	Nonattainment	Nonattainment (western Nevada County) Unclassified/attainment (eastern Nevada County)
PM ₁₀	Nonattainment	Unclassified
PM _{2.5}	Unclassified	Unclassified/Attainment
Carbon Monoxide	Unclassified	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified
Sulfates	Attainment	N/A
Lead	Attainment	Unclassified/Attainment
Hydrogen Sulfide	Unclassified	N/A
Visibility Reducing Particles	Unclassified	N/A

Source: CARB 2022

One of the most important reasons for implementing air quality standards is the protection of those members of the population who are most sensitive to the adverse health effects of air pollution, termed “sensitive receptors.” The term “sensitive receptors” refers to specific population groups, as well as the land uses where they would reside for land periods. Commonly identified sensitive population groups are children, the elderly, the acutely ill, and chronically ill. Commonly identified sensitive land uses are residences, schools, playgrounds, childcare centers, retirement homes or convalescent homes, hospitals, and clinics. Toxic air contaminants (TAC), naturally occurring asbestos (NOA), and odors are also factors that influence air quality and potential Project effects to air quality.

3.3.1.2 Federal Air Quality Regulations

At the federal level, the Environmental Protection Agency (EPA) has been charged with implementing national air quality programs. The EPA’s air quality mandates are drawn primarily from the Federal Clean Air Act (FCAA), which was signed into law in 1970. Congress amended the FCAA in 1977 and in 1990. The FCAA required the EPA to establish the NAAQS and also set deadlines for their attainment. Two types of NAAQS have been established: primary standards, which protect public health, and secondary standards, which protect public welfare from non-health-related adverse effects, such as visibility restrictions.

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3.3.1.3 California Air Quality Regulation

The 1988 California Clean Air Act (CCAA) requires that all air districts in the state endeavor to achieve and maintain CAAQS for O₃, CO, SO₂, and NO₂ by the earliest practical date. The CCAA specifies that districts focus particular attention on reducing emissions from transportation and area-wide emission sources, and the act provides districts with authority to regulate indirect sources. Each district plan is required to either: 1) achieve a five percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each nonattainment pollutant or its precursors, or 2) to provide for implementation of all feasible measures to reduce emissions.

3.3.1.4 Northern Sierra Air Quality Management District

Air quality within Nevada County is regulated by the Northern Sierra Air Quality Management District (NSAQMD). The NSAQMD was created in 1986 with the merging of the Nevada, Plumas and Sierra counties air districts. As it pertains to the Project, the NSAQMD is the agency that is primarily responsible for ensuring that NAAQS and CAAQS are not exceeded and that air quality conditions are maintained. This is achieved through the preparation of plans for the attainment of air quality standards, inspection, and issuance of permits to operate stationary sources, adoption and enforcement of air pollution rules and regulations, air quality monitoring, and the implementation of programs and regulations required under the FCAA and CCAA.

The NSAQMD is in the process of certifying its federally enforceable State Implementation Plan (SIP). The SIP is an air quality attainment plan designed to address the County's nonattainment status for the state 1-hour ozone standard through the reduction of emissions of ozone precursors (reactive organic gases [ROG] and nitrogen oxides [NO_x]). This plan includes various pollution control strategies. However, most of these reductions are expected to come from motor vehicles using green/cleaner fuel or power sources and from state regulations.

The NSAQMD rules applicable to the Project include:

Rule 226 - Fugitive Dust Control. Rule 226 requires the submittal of a dust control plan to be approved by an Air Pollution Control Officer before topsoil is disturbed on any project where more than one acre of natural surface area is to be altered or where the natural ground cover is removed. This applies to any clearing or grading. The intent of this rule is to reduce and control fugitive dust emissions. This rule applies to public and private construction activities, including dismantling/demolition of structures, processing/moving materials (sand, gravel, rock, dirt, etc.), and operation of machines/equipment. The dust control plan would need to identify the use of reasonable measures to prevent dust emissions and could include cessation of operations during high winds, cleanup, sweeping, watering, compacting, and seeding disturbed areas. If a project is in an area mapped as having ultramafic rock or serpentine, or if these rock types are discovered on-site, the statewide Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations (Section 93105 of Title 17 of the California Code of Regulations) applies. Also, for large projects or in special circumstances (e.g., near schools or other sensitive receptors), additional measures (e.g., limits on active disturbance area or grading hours) may be required (NSAQMD 2024)

Rule 523–Portable Equipment Registration. Rule 523 requires a permit to operate for portable engines rated 50 brake horsepower or greater that are not registered through the Statewide Portable Equipment

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Registration Program (PERP). Portable equipment includes diesel pile driving hammers, pumps, power generators, cranes, dredges on boats or barges, woodchippers, compressors, vacuum trucks, well drilling, and welding. The NSAQMD recommends obtaining a PERP registration in lieu of a district permit when possible; however, if an engine operates in one location for more than 12 continuous months an NSAQMD permit is required.

NSAQMD CEQA Thresholds

NSAQMD has published a guidance document for the preparation of the air quality portions of environmental documents that include thresholds of significance to be used in evaluating land use proposals. Thresholds of significance are based on the projected impacts and are used as a basis to determine which mitigation applies (NSAQMD 2024). The NSAQMD has developed a tiered approach to significance levels: a project with emissions meeting Level A thresholds will require the most basic mitigations; projects with projected emissions in the Level B range will require more extensive mitigation; and projects that exceed Level C thresholds will require the most extensive mitigations. NSAQMD-recommended thresholds are identified below.

Table 3.3-2 NSAQMD Significance Thresholds (lbs/day)

Significance Level	NO _x	ROG	PM ₁₀
Level A	<24	<24	<79
Level B	25-136	25-136	80-136
Level C	>136	>136	>136

Source: NSAQMD

3.3.1.5 Nevada County General Plan

As a special district with equal authority, NID is exempt from following goals and policies within the County's General Plan. However, NID aims to comply with those goals and policies and use them as a metric for formulating an impact analysis.

Chapter 14, Air Quality, of the Nevada County General Plan provides citywide goals, objectives and policies aimed at improving air quality. The air quality goals and policies applicable to the analysis of the Project's air quality impacts are as follows:

Goal 14.1: Attain, maintain, and ensure high air quality.

Objective 14.1: Establish land use patterns that minimize impacts on air quality.

Policy 14.1: Cooperate with the Air Quality Management District (currently the NSAQMD), during review of development proposals. As part of the site plan review process, require applicants of all subdivisions, multi-family, commercial, and industrial development projects to address cumulative and long-term air quality impacts, and request the District enforce appropriate land use regulations to reduce air pollution.

Objective 14.2: Implement standards that minimize impacts on and/or restore air quality.

Policy 14.3: Where it is determined necessary to reduce short-term and long-term cumulative impact, the County shall require all new discretionary projects to offset any pollutant increases. Wherever possible, such offsets shall benefit lower-income housing.

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3.3.2 Impact Analysis

The potential Project-related impacts and the mitigation to reduce such impacts to less-than-significant levels are discussed below. To assess potential Project-related impacts to air quality, the California Emissions Estimator Model Version 2022.1.1.26 (CalEEMod) was used to estimate emissions from Project construction activities (CAPCOA 2024). CalEEMod was developed by the California Air Pollution Control Officers Association in partnership with California Air Districts to provide a uniform platform for government agencies, land use planners, and environmental professionals to estimate potential emissions associated with both construction and operational use of land use projects. The model was run using the following assumptions/Project details:

- The Proposed Project construction activities would take approximately four years and is expected to only occur during the dry season (April to December).
- If DSOD does not require the upper plunge pool replacement, the timeline and emissions would be less than presented.
- The Proposed Project, once constructed, should have no emissions from operations (similar to the existing conditions at the site). Therefore, operations emissions estimates were not included in this analysis for the Project.

III. AIR QUALITY Would the Project:	Potentially Significant Impact	Less-than- significant with Mitigation Incorporation	Less-than- significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
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?		X		
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

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

Finding: Less-than-significant

Construction

A Project would be considered to conflict with or obstruct implementation of the regional air quality plan if it were inconsistent with the emissions inventories contained in applicable plans. The NSAQMD is in the process of preparing a federally enforceable SIP for western Nevada County to address O₃ levels and identify what pollution control strategies would be implemented to reduce current ambient air levels down to the NAAQS. Most necessary reductions in the County are expected from statewide measures and from

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mobile sources using cleaner fuel/power sources, including on-road vehicles and off-road equipment. Construction would comply with all NSAQMD rules and California Air Resources Board (CARB's) PERP that would reduce emissions. As shown in Impact Analysis b, below, construction emissions would fall below thresholds.

Operation

The Project would not result in any changes to long-term operation and, therefore, would not result in any changes to existing conditions. Therefore, the Project would not conflict with or obstruct implementation of any applicable air quality plan; therefore, the impact would be less-than-significant.

b) *Would the Project 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?*

Finding: Less-than-significant with Mitigation.

Construction

The Proposed Project would result in temporary air quality emissions for construction. Construction would take place over four phases and four years. Construction would only take place primarily during the dry season (April to December). Emissions were modeled within CalEEMod, which estimates default input factors based on the land use type and size (Appendix A). Default factors for construction equipment and construction trips were applied. As presented in **Table 3.3-3**, the Proposed Project's construction-related emissions were found to fall below NSAQMD Level A thresholds, and a cumulatively considerable impact would not occur.

Table 3.3-3 CalEEMod-Predicted Maximum Daily Project Emissions Estimates

	ROG	NO _x	PM ₁₀
Project Unmitigated Construction Emissions (lbs/day)	2.94	21.58	7.98
NASQMD Level A Thresholds (lbs/day)	24	24	79
Exceed Thresholds?	No	No	No

Source: CAPCOA 2024

Note: Construction was modeled to occur over three years to account for the possible overlap between Phase 1 and Phase 2 of construction. The maximum construction emissions occur during Phase 1 and Phase 2 overlap. Therefore, if Phase 1 and Phase 2 occur in different years, daily emissions would be lower.

ROG = reactive organic gases

NSAQMD requires all projects that meet Level A thresholds to implement basic mitigation. As such, the basic MMs required under NSAQMD applicable to the Project are provided in MM AQ-1 and the impact is less-than-significant with mitigation.

Operation

The Project would not require operational activities and would be the same as existing conditions. Therefore, no long-term impacts to air quality would occur.

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

Finding: Less-than-significant

Construction

This discussion addresses whether the Project would expose sensitive receptors to construction-generated fugitive dust (PM₁₀), NOA, construction-generated TAC in the form of diesel particulate matter (DPM). Construction of the Proposed Project would involve operating heavy equipment and construction activities that would temporarily produce additional dust and air emissions.

3.3.2.1 Fugitive Dust

The nearest sensitive receptor in the vicinity of the Proposed Project alignment would be a residence approximately 0.25 miles from the Project site. Most of this fugitive dust would remain localized and would be deposited near Project construction areas. The Project would be required to comply with all fugitive dust requirements set in NSAQMD Rule 226. Therefore, the impact is less-than-significant.

3.3.2.2 Naturally Occurring Asbestos

The Project is not located in an area mapped as having, or as otherwise known to have, ultramafic rock, serpentine, or NOA. The nearest ultramafic mapping unit is over seven miles to the southeast of the Project (USGS 2011). Therefore, it can be reasonably concluded that the Project would not expose sensitive receptors to NOA. Impacts would be less-than-significant.

3.3.2.3 Toxic Air Contaminant Emissions

Construction activities have the potential to generate DPM emissions related to the number and types of equipment typically associated with construction. Off-road, heavy-duty diesel equipment used for site grading and other construction activities could result in the generation of DPM. However, construction would be temporary and would occur over a relatively short duration. Additionally, construction would only occur during a portion of each year (April to December). Operation of construction equipment would be regulated by federal, state, and local regulations, including NSAQMD rules and CARB regulations, and would occur intermittently throughout the course of a day. Moreover, the nearest residence is approximately 0.25 miles from the Project site. According to CARB, DPM dissipates with distance from the source, especially within the first 500 ft. As such, it is not anticipated that the Proposed Project would expose sensitive receptors to substantial pollutant concentrations and impacts would be considered less-than-significant with mitigation incorporated.

Operation

The Project would not require operational activities and would be the same as existing conditions. Therefore, no long-term impacts related to pollutant concentrations would occur.

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

Finding: Less-than-significant

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Construction

While offensive odors rarely cause any physical harm, they can still be unpleasant, leading to distress among the public and often generating citizen complaints to local governments and the NSAQMD. The occurrence and severity of odor impacts depends on numerous factors, including nature, frequency, and intensity of the source, the wind speed and direction, and the sensitivity of the receptor. The nearest sensitive receptor in the vicinity of the Proposed Project is approximately 500 ft from the Project. Construction of the Proposed Project and future operations would not omit or add to odors in the area. Given this is a spillway improvement project and does not entail the application of foul-smelling materials; given the distance from sensitive receptors; and given the lack of current odor complaints from the public from other Scotts Flat operations, the impacts from odor would be less-than-significant.

Operation

The Project would not require operational activities and would be the same as existing conditions. Therefore, no long-term impacts related to odor would occur.

3.3.3 Mitigation Measures

3.3.3.1 MM AIR-1: NAQMD Required Mitigation

The Project applicant shall adhere to the following NSAQMD-recommended MMs to reduce long-term operational emissions:

- Grid power shall be used (as opposed to diesel generators) for job site power needs where feasible during construction.

3.3.3.2 MM AIR-1 Implementation

- **Responsible Party:** The Lead Agency shall require the contractor to use grid power when feasible. The Lead Agency shall be responsible for determining if grid power is accessible at the site and working with the contractor to ensure grid power is used in lieu of diesel generators.
- **Timing:** A determination if grid power is available on-site should be determined prior to Project construction. Throughout all phases of construction, grid power should be used or at least evaluated as an alternative to diesel generators.
- **Monitoring and Reporting Program:** During construction, the use of diesel generators instead of grid power should be recorded as well as the reason why grid power was not feasible.
- **Standards for Success:** The use of grid power in lieu of diesel generators or a written record stating why grid power was not feasible when diesel generators are required.

3.4 Biological Resources

This section addresses the potential Project impacts on biological resources by defining the regional and local biological environment and identifying and screening species based on their likelihood to occur in the Project area. Specific Project-related impacts are evaluated based on the thresholds of significance

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established in the CEQA Guidelines. The section concludes by detailing MMs required to reduce potential impacts to less-than-significant levels.

3.4.1 Setting

The Proposed Project is located within the foothills of west-central Nevada County approximately five miles to the east of the community of Nevada City, California. The Project area includes approximately 31 total acres on NID-owned property within the *North Bloomfield, California* United States Geological Survey (USGS) 7.5-minute quadrangle (Quad) at an elevation ranging between approximately 2,900 and 3,100 ft (884 to 945 meters) amsl. The Project area is located on NID-owned property which abuts both private lands and Tahoe National Forest land.

The Project region is located in a Mediterranean climate characterized by cool, wet winters and hot, dry summers. The vegetation within the Project vicinity is characterized primarily by Sierran mixed conifer forest habitat. The Proposed Project is located within the Deer Creek Watershed (EPA 2024a), and major land uses within, adjacent to, and near the Proposed Project area include natural resource lands (i.e., a combination of public, quasi-public, and private lands used for resource management and production), recreational, rural residential, public/institutional, planned development, and neighborhood commercial and low-density residential areas (Nevada County 2020).

3.4.2 Study Methods

3.4.2.1 Desktop Analysis

A desktop analysis was conducted to identify sensitive biological resources, including wildlife species, plant species, and their habitats, that may occur within the Project area and region, as defined by the CDFW, United States Fish and Wildlife Service (USFWS), and California Native Plant Society (CNPS). The following resources were used to identify those potentially occurring biological resources:

- CDFW California Natural Diversity Database (CNDDDB) records search for known occurrences of special status plant and wildlife species within two miles of the Proposed Project area (CDFW 2026a).
- USFWS list of federally proposed, candidate, threatened, and endangered species and Designated Critical Habitat (DCH) that have the potential to occur within two miles of the Proposed Project area (USFWS 2026a).
- University of California, Davis's PISCES California Fish Data and Management Software (UC Davis 2022).
- USFWS Online Mapper: Critical Habitat for Threatened and Endangered Species (USFWS 2026b).
- CNPS online Inventory of Rare and Endangered Plants of California for the *Camptonville, Pike, Alleghany, Nevada City, North Bloomfield, Washington, Grass Valley, Chicago Park, and Dutch Flat, California* 7.5-minute USGS quadrangles between 2,000 and 4,000 ft (610 and 1,219 meters) amsl (CNPS 2026a).

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- Calflora online database (Calflora 2026), which was used as a secondary tool for the purpose of assessing rare plant species that have the potential to occur within the Proposed Project area.
- Existing reports: California Red-legged Frog Survey, Scotts Flat Reservoir Lower Plunge Pool Inspection Project (NID 2018) and Initial Study/Mitigated Negative Declaration for the Scotts Flat Lower Connector Trail Project (NID 2018, NID 2021).
- Aerial imagery (Google Earth Pro 2025).

Endangered, threatened, rare, and/or special status species that were identified during the desktop analysis of the Proposed Project are compiled in **Table 3.4-1**. For the purpose of this IS/MND, special status species are defined by the following parameters:

- Species listed or proposed for listing as threatened or endangered under FESA (50 Code of Federal Regulations [CFR] 17.12 for listed plants, 50 CFR 17.11 for listed animals, and various notices in the Federal Register for proposed species).
- Species that are listed or proposed for listing by California as threatened or endangered under CESA (14 California Code of Regulations Section [§] 670.5).
- Plants listed as rare under the California Native Plant Protection Act of 1977 (California FGC § 1900 et seq.).
- Plants considered by the CNPS to be Rank 1A: Plants presumed extirpated in California and either rare or extinct elsewhere; or Rank 1B: Rare, threatened, or endangered in California and elsewhere.
- Plants ranked by the CNPS as Rank 2A: Plants presumed extirpated in California, but common elsewhere; or 2B: Rare, threatened, or endangered in California and common elsewhere.
- Plants ranked by the CNPS as Rank 3: Plants about which more information is needed and cannot yet be excluded from review.
- Plants ranked by the CNPS as Rank 4: Plants with limited distribution.
- Species that meet the definitions of “rare” or “endangered” under CEQA Guidelines § 15380.
- Animals designated California Species of Special Concern (SSC) or fully protected by CDFW.
- Plant and animal species that are designated as “special animals” or “those of greatest conservation need” by CDFW through the CNDDDB.

3.4.2.2 Field Study

In addition to the biological field surveys conducted in January 2021 within the vicinity for NID’s Scotts Flat Lower Connector Trail Project (NID 2021), a reconnaissance-level biological survey and habitat assessment was conducted in the Proposed Project area in January 2025. The biological resource surveys included identification of both vegetation communities present as well as wildlife habitats.

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3.4.3 Study Results

3.4.3.1 Desktop Analysis

3.4.3.1.1 Biological Communities

CDFW and the CNPS have developed a standard classification system for floristically describing vegetation communities statewide; further translating to the National Vegetation Classification. This system has been compiled in *A Manual for California Vegetation, 2nd Edition* (Sawyer et al. 2009) and has been accepted and adopted by state and federal agencies. The Manual of California Vegetation (MCV) classifications assist in defining vegetation based on quantitative-based rules to distinguish between vegetation community types, local variation, ecological land classification/ composition, species rarity and significance, and historical and current land management practices (Sawyer et al. 2009). The MCV defines vegetation communities by dominant and/or co-dominant species present as: 1A) alliance- a broad unit of vegetation with discernible and related characteristics; 1B) provisional alliance- a temporary vegetation community and/or candidate alliance; and/or 2) association- a basic secondary unit of classification, not as broad as an alliance, with uniform composition and conditions. The MCV classifications replace lists of vegetation types developed for the CNDDDB. In addition, vegetation communities were cross-referenced with wildlife habitat types as classified in California Statewide Wildlife Habitat Relationships System (Mayer and Laudenslayer 1988). Based on the desktop review and field verification, the following biological communities or land cover types are present within the Project area.

Pinus ponderosa – Calocedrus decurrens – Pseudotsuga menziesii Forest & Woodland Alliance

Ponderosa pine – incense cedar – Douglas fir forest and woodland habitat is the dominant vegetation community surrounding the Project area. This habitat community is generally found at elevations between 984 to 6,562 ft (300 and 2000 meters) amsl. Stands of this alliance consist of a mixed conifer canopy with codominance of at least two of the three nominal species. This is a classic mixed conifer type of the lower to mid-montane zones of California. Other conifers and/or understory species may also be present such as sugar pine (*Pinus lambertiana*). Understory species consist of white fir (*Abies concolor*), black oak (*Quercus kelloggii*), and greenleaf manzanita (*Arctostaphylos patula*).

Montane Riparian

Within the Sierra Nevada, characteristic species within montane riparian habitats often include thinleaf alder (*Alnus tenuifolia*), aspen, black cottonwood (*Populus trichocarpa*), mountain dogwood (*Cornus nuttallii*), western azalea (*Rhododendron occidentale*), willow (*Salix* sp.), and white alder (*Alnus rhombifolia*). This habitat often occurs as alder (*Alnus* sp.) or willow along the edges of streams of seeps, or as an overstory of Fremont cottonwood (*Populus fremontii*) (Mayer and Laudenslayer 1988). This habitat typically occurs between 2,000 and 8,000 ft (607 and 2,134 meters) in elevation. In the Project area, this habitat consists mostly of white alder with a lesser amount of bigleaf maple (*Acer macrophyllum*), mountain dogwood, and willow intermixed (NID 2021). Non-native Himalayan blackberry (*Rubus armeniacus*) is also present, which forms monocultures in some areas, particularly along the Scotts Flat Powerhouse discharge channel. This habitat type occurs in a narrow band along the Scotts

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Flat Powerhouse discharge channel and Deer Creek. Wildlife species observed in this habitat included great blue heron (*Ardea Herodias*) and American dipper (*Cinclus mexicanus*) (NID 2021).

3.4.3.1.2 Hydrologic Features

The Scotts Flat Reservoir is in the Sacramento Hydrologic Basin, the Yuba River Hydrologic Unit, and the Nevada City Hydrologic Area. Deer Creek flows from about the 4,000-foot elevation through Scotts Flat Reservoir to Deer Creek, then into Lower Scotts Flat Reservoir, through Nevada City and Lake Wildwood to the Yuba River, the Feather River, and the Sacramento River.

Scotts Flat Reservoir is at an elevation of 3,100 ft (945 meters) and has a surface area of approximately 850 acres, with approximately 7.5 miles of shoreline. Amenities consist of two launch ramps, a marina, campsites, a picnic area, sandy beaches, and a general store. The earthen rock-fill Scotts Flat Dam dates from 1948 and impounds Deer Creek to create the reservoir with a capacity of 49,000 acre-ft. At 175 ft above streambed, the dam low level outlet and spillway release water into Deer Creek.

3.4.3.1.3 Wildlife Habitat

Biological vegetation communities may also provide habitat for a variety of wildlife species. The Project area is primarily located within a Sierran mixed conifer forest with dominant species including ponderosa pine, incense cedar, and Douglas fir. Specifically, riparian and wetland habitats are considered to be high value habitat as they provide water, thermal cover, migration corridors and diverse nesting and feeding opportunities for a variety of wildlife including birds, mammals, reptiles, amphibians, fish, and invertebrates alike. Riparian areas also increase biological productivity and provide a valuable connection between terrestrial and aquatic habitats (Mayer and Laudenslayer 1988). Habitats within the Project area have the potential to support a variety of terrestrial and semi-aquatic wildlife species, including species such as the western gray squirrel (*Sciurus griseus*) mule deer (*Odocoileus hemionus*), black bear (*Ursus americanus*), and coyote (*Canis latrans*), western fence lizard (*Sceloporus occidentalis*), Sierran treefrog (*Pseudacris sierra*), Stellar's jay (*Cyanocitta stelleri*), dark-eyed junco (*Junco hyemalis*), and red-shouldered hawk (*Buteo lineatus*). Resident fish that may occur in the aquatic habitats within and/or downstream of the Project area include central California roach (*Lavinia symmetricus symmetricus*), Sacramento pikeminnow (*Ptychocheilus grandis*), and Sacramento sucker (*Catostomus occidentalis occidentalis*) (UC Davis 2022). The dam on Lower Scotts Flat Reservoir downstream of the Project area prevents access by anadromous special status fish species such as Central Valley steelhead (*Oncorhynchus mykiss irideus*).

3.4.3.1.4 Wildlife Corridors

Wildlife movement corridors have been recognized by USFWS and CDFW as important habitats worthy of conservation. Wildlife corridors provide migration channels seasonally (i.e., between winter and summer habitats); provide non-migratory wildlife with the opportunity to move within their home range for food, cover, and reproduction; and allow for dispersal for individuals to colonize new areas (CDFW 2026b, USFWS 2026c). Although data on the locations and value of wildlife movement corridors for all wildlife species specific to the Project area are limited, migration corridors, migration stopovers, and winter range habitat for the Downieville-Nevada City Mule Deer Herd falls within a range of approximately four to nine miles to the north, northeast, and southeast of the Project area (CDFW 2026a). Riparian habitats also often offer highly favorable habitat for a wide variety of wildlife species as it provides corridors for wildlife

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movement, specifically undisturbed and continuous reaches of land, as opposed to areas with fragmentation (e.g., nearby highways).

Other contributing factors that are useful for wildlife migration include undisturbed and continuous expanses of land. According to CDFW's Terrestrial Connectivity, Areas of Connectivity (ACE) dataset accessed through CDFW's Biogeographic Information and Observation System, the Project area is ranked as ACE Rank 4 out of 5 (CDFW 2019a):

- ACE Rank 4: Conservation Planning Linkages: These are the habitat connectivity linkages mapped in the California Essential Habitat Connectivity and fine-scale regional connectivity studies. Habitat connectivity linkages are often based on species-specific models and represent the best connections between core natural areas to maintain habitat connectivity. Linkages have more implementation flexibility than irreplaceable and essential corridors. Any linkage areas not included in the category above are included here.

The ACE ranks were developed to provide a broad overview of connectivity across California using the best available information for each region of the state. The scoring system was designed to bring together connectivity information at multiple scales, giving each hexagon (as viewed in CDFW's Biogeographic Information and Observation System [BIOS]) an ACE Rank of 1–5 based on the conservation importance of connectivity based on the best available data (CDFW 2026c).

3.4.3.1.5 Designated Critical Habitat

Critical habitat is defined in Section 3(5)A of the FESA as specific regions in the geographical area occupied by federally listed species that contain the physical or biological features essential to the conservation of the species and that may require special management considerations or protection. Critical habitat does not have to be occupied by that species at the time it is designated; however, specific areas outside the geographical area occupied by the species may also be included in critical habitat designations if determined to be essential for the conservation of the species.

California Red-legged Frog Designated Critical Habitat

In California, a total of approximately 1,636,609 acres was established as DCH for the California red-legged frog (*Rana draytonii*) in May 2006 (USFWS 2006) becoming final rule in April 2010 (USFWS 2010). This acreage includes 48 total DCH units, and all were occupied by the species at the time of listing (USFWS 2010). To determine what areas to designate as critical habitat where the California red-legged frog is present at the time of listing, the USFWS identified the physical or biological features required for its conservation that may require special management or protection. These features include (USFWS 2010):

1. Space for individual and population growth and for normal behavior;
2. Food, water, air, light, minerals, or other nutritional or physiological requirements;
3. Cover or shelter;
4. Sites for breeding, reproduction or rearing (or development) of offspring; and
5. Habitats protected from disturbance or representative of the historical, geographic, and ecological distributions of the species.

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Designated Critical Habitat Unit NEV-1

DCH Unit NEV-1, the Sailor Flat unit, includes approximately 8,285 acres (3,171 acres of federal land, 12 acres of state land, and 5,102 acres of privately owned land). The unit is located within central Nevada County, south of Tyler Foot Road and north of State Highway 20 (USFWS 2010) and is located approximately 1.5 miles to the northwest of the Project area. Unit NEV-1 is one of six known extant breeding populations in the Sierra Nevada foothills and is in the easternmost portion of the species' historical range (USFWS 2010). Primary Constituent Elements in Unit NEV-1 may require special management considerations or protection due to wildland fire suppression activities, which may dewater aquatic habitats. These activities could potentially result in the desiccation of egg masses or direct death of adults. Other threats to the California red-legged frog in Unit NEV-1 include timber harvest activities and predation by non-native species (USFWS 2010).

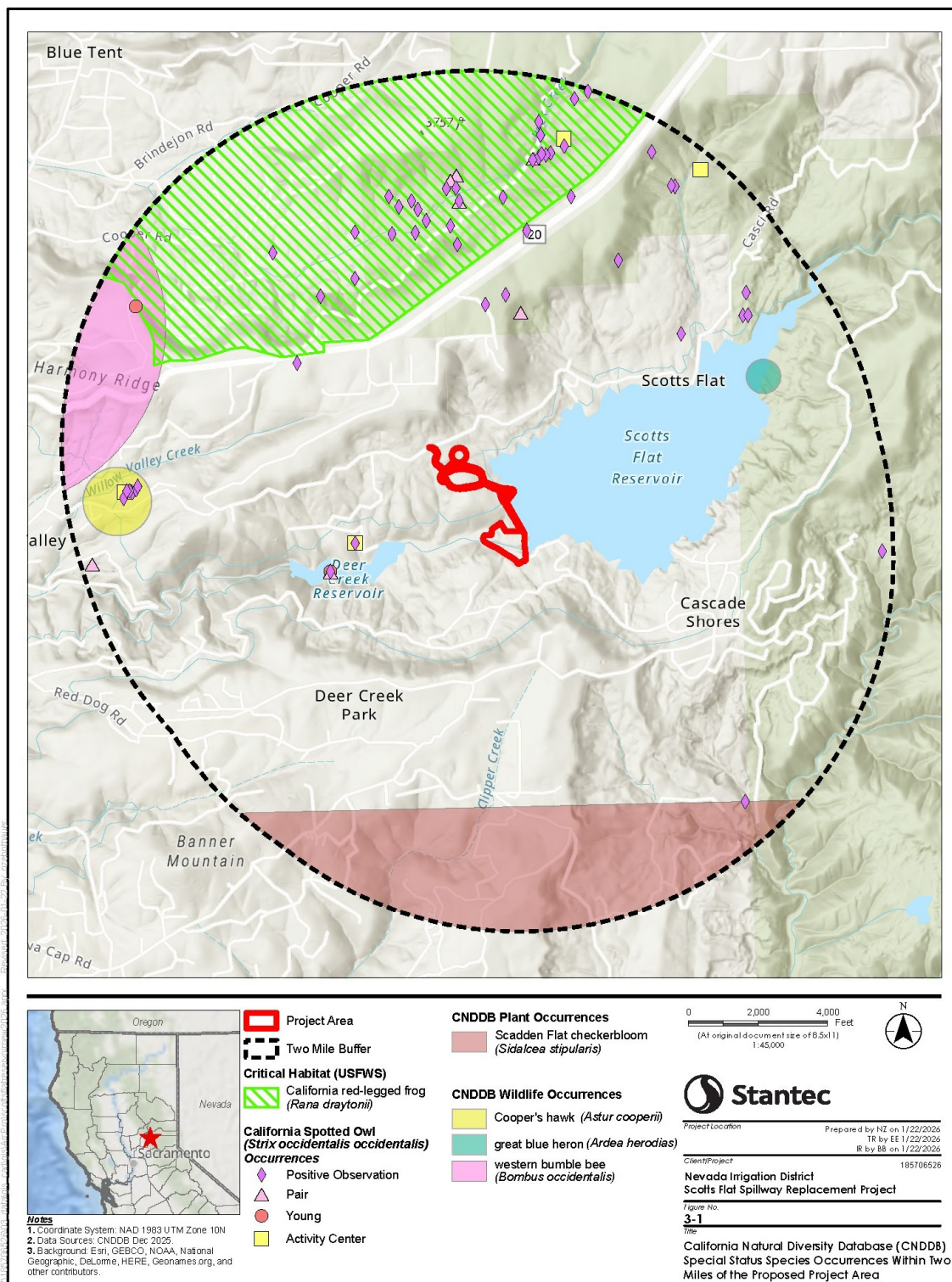
3.4.3.1.6 Special Status Species

Special status plant and wildlife species and critical habitat known to occur within two miles of the Project area are shown in **Figure 3-1**.

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Figure 3-1 California Natural Diversity Database Special Status Species Occurrences Within Two Miles of the Proposed Project Area



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Based on the results of the background research listed above, 37 special status plants and 14 fish and wildlife species, not including nesting raptors and other migratory birds, were defined as potentially occurring within the Project region. This includes special status plant and wildlife species that are known to occur within two miles of the Project area or have the potential to occur based on background research data from CDFW's CNDDDB, USFWS list of Federal Endangered and Threatened Species, CNPS online inventory, and Calflora (CDFW 2026a, USFWS 2026a, CNPS 2026a, Calflora 2026) (**Table 3.4-1**).

Conclusions in **Table 3.4-1** regarding the habitat suitability and the potential for species occurrence were based on background research, database searches, and local habitat suitability evaluated during biological field surveys. For each special status species known to occur in the Project region, the "potential for occurrence" in the Project area has been evaluated and is defined as follows:

- **Very Low to Nil:** The Proposed Project area and/or immediate area do not support suitable habitat for a particular species. The Proposed Project is outside the species' known range.
- **Low:** The Proposed Project area and/or immediate area only provide limited habitat for a particular species. In addition, the known range for a particular species may be outside the immediate Proposed Project area.
- **Moderate:** The Proposed Project area and/or immediate area provide suitable habitat for a particular species, and habitat for the species may be impacted.
- **High:** The Proposed Project area and/or immediate area provide ideal habitat conditions for a particular species, and/or known populations occur in the immediate area and within the potential area of impact.
- **Present:** An occurrence was recorded within five years or was observed during biological surveys for the Proposed Project.

Species with a moderate potential to occur, high potential to occur, or known to occur within the Project area are further described and analyzed for potential impacts in the species accounts below **Table 3.4-1**. In addition, those species that are high profile and/or have recently been listed under CESA/FESA are further analyzed below. These species, although with a low potential to occur within the Project area, include the California red-legged frog, foothill yellow-legged frog (*Rana boylei*) and California spotted owl (*Strix occidentalis occidentalis*).

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Table 3.4-1 Special Status Plant and Wildlife Species and Their Potential to Occur in the Project Area.

Common Name Scientific Name	Listing Status			Geographic Distribution	Preferred Habitat	Identification Period	Level of Potential of Occurrence within Project Area
	Federal	State	CNPS				
Plants							
Bacigalupi's yampah <i>Perideridia bacigalupii</i>	–	S3	4.2	1,475–4,120 ft (450–1,255 m)	Chaparral and lower montane coniferous forest.	June–August	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Brandegee's clarkia <i>Clarkia biloba</i> ssp. <i>brandegeae</i>	–	S4	4.2	245–3,000 ft (75–915 m)	Chaparral, cismontane woodland, lower montane coniferous forest.	May–July	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Brownish beaked-rush <i>Rhynchospora capitellata</i>	–	S1	2B.2	148–6,562 ft (45–2,000 m)	Lower and upper montane coniferous/ yellowpine forest; meadows; seeps, (coastal) marshes, swamps, wetlands, riparian.	July–August	Low. Suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Butte County fritillary <i>Fritillaria eastwoodiae</i>	–	S3	3.2	165–4,920 ft (50–1,500 m)	Chaparral, cismontane woodland, lower montane coniferous forest.	March–June	Moderate. Suitable habitat within the Project area. Two known occurrences on the northern side of Highway 20, approximately two miles from the Project area (Calflora 2026).
California lady's-slipper <i>Cypripedium californicum</i>	–	S4	4.2	100–9,025 ft (30–2,750 m)	Bogs and fens, lower montane coniferous forest.	April–August	Moderate. Suitable habitat within the Project area. One known occurrence on the eastern side of Scotts Flat Reservoir, approximately 1.5 miles from the Project area (Calflora 2026).
California pitcherplant <i>Darlingtonia californica</i>	–	S4	4.2	0–8,480 ft (0–2,585 m)	Bogs and fens, meadows and seeps.	April–August	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Cantelow's lewisia <i>Lewisia cantelovii</i>	–	S3	1B.2	1,083–4,495 ft (330–1,370 m)	Broad-leafed upland forests, cismontane woodland, lower montane coniferous/ yellow pine/ mixed evergreen forests, chaparral, granitic; serpentine seeps, riparian, and wetlands.	May–October	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Chaparral sedge <i>Carex xerophila</i>	–	S2	1B.2	915–2,525 ft (279–770 meters)	Chaparral, cismontane woodland, lower montane coniferous forest. Serpentine and gabbro soils.	March–June	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area. Outside known elevation range for species.
Clustered lady's-slipper <i>Cypripedium fasciculatum</i>	–	S3.2	4.2	328–7,989 ft (100–2,435 m)	Lower montane coniferous, north coast coniferous, yellow pine, redwood forests; serpentine; riparian, stream banks, seeps, wetlands.	March–August	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Congdon's onion <i>Allium sanbornii</i> var. <i>congdonii</i>	–	S3	4.3	1,985–4,575 ft (300–1,395 m)	Chaparral, cismontane woodland.	April–July	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Dubious pea <i>Lathyrus sulphureus</i> var. <i>argillaceus</i>	–	S1S2	3	490–3,050 ft (150–930 m)	Cismontane woodland, lower and lower montane coniferous forest.	April–May	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area.

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Elongate copper moss <i>Mielichhoferia elongata</i>	–	S2	2B.2	1,640–4,265 ft (500–1,300 m)	Cismontane woodland; rocky outcrops.	Year-round	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Finger rush <i>Juncus digitatus</i>	–	S1	1B.1	2,165–3,600 ft (660–1,097 m)	Cismontane woodland, lower montane coniferous forest (openings), and vernal pools (xeric).	May-June	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Fresno ceanothus <i>Ceanothus fresnensis</i>	–	S3.3	4.3	2,953–6,900 ft (900–2,103 m)	Cismontane woodland, Lower montane coniferous forest.	May–July	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Giant checkerbloom <i>Sidalcea gigantea</i>	–	S3	4.3	2,200–6,400 ft (670–1,950 m)	Lower and montane coniferous forest.	June–August	High. Suitable habitat within the Project area. One known occurrence on the northern shore of Scott’s Flat Reservoir (Calflora 2026).
Humboldt lily <i>Lilium humboldtii</i> ssp. <i>humboldtii</i>	–	S3	4.2	295–4,200 ft (90–1,280 m)	Chaparral, cismontane woodland, lower montane coniferous forest.	May–July	Moderate. Suitable habitat within the Project area. One known occurrence south of Highway 20, approximately two miles west of the Project area (Calflora 2026).
Hutchison's lewisia <i>Lewisia kelloggii</i> ssp. <i>hutchisonii</i>	–	S2S3	3.2	2,509–7,759 ft (765–2,365 m)	Upper montane coniferous forest.	April–August	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Inundated bog-clubmoss <i>Lycopodiella inundata</i>	–	S1	2B.2	15–3,280 ft (5–1,000 m)	Bogs and fens (coastal), lower montane coniferous forest (mesic), marshes and swamps (lake margins).	June–September	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Layne's ragwort (Layne’s butterweed) <i>Packera layneae</i>	T	R, S2	1B.2	655–3,560 ft (200–1,085 m)	Chaparral, cismontane woodland.	April–August	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Long-fruit jewelflower <i>Streptanthus longisiliquus</i>	–	S3	4.3	2,345–4,920 ft (715–1,500 m)	Cismontane woodland, lower montane coniferous forest.	April–September	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Pine Hill flannelbush <i>Fremontodendron decumbens</i>	–	R, S1	1B.2	1,395–2,495 ft (425–760 m)	Chaparral, cismontane woodland.	April–July	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area. Outside known elevation range for species.
Sanborn's onion <i>Allium sanbornii</i> var. <i>sanbornii</i>	–	S3S4	4.2	855–4,955 ft (260–1,510 m)	Chaparral, cismontane woodland, lower montane coniferous forest.	May–September	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Scadden Flat Checkerbloom <i>Sidalcea stipularis</i>	–	S1	1B.1	2,295–2,395 ft (700–730 m)	Marshes and swamps (montane freshwater).	July–August	Low. Limited suitable habitat within the Project area. There are two records to the south of the Project area (potentially within 2 miles) for which specific location information has been suppressed (CNDDDB 2024). Also, outside known elevation range for species.

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Sheldon's sedge <i>Carex sheldonii</i>	–	S2	2B.2	3,935–6,600 ft (1,200–2,012 m)	Lower montane coniferous forest (mesic), freshwater marshes and swamps, riparian scrub.	May–August	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area. Outside known elevation range for species.
Sierra blue grass <i>Poa sierrae</i>	–	S2S3	1B.3	1,197–4,921 ft (365–1,500 m)	Openings; lower montane coniferous forest.	April–June	Low. Suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Sierra clarkia <i>Clarkia virgata</i>	–	S3	4.3	1,310–5,300 ft (400–1,615 m)	Cismontane woodland, lower montane coniferous forest.	May–August	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Sierra foothills brodiaea <i>Brodiaea sierrae</i>	–	S3	4.3	165–3,215 ft (50–980 m)	Chaparral, cismontane woodland, lower montane coniferous forest.	May–August	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Siskiyou Mountains huckleberry <i>Vaccinium coccineum</i>	–	S3	3.3	3,595–7,005 ft (1,095–2,135 m)	Lower and upper montane coniferous forest.	June–August	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area. Outside known elevation range for species.
Spicate calycadenia <i>Calycadenia spicata</i>	–	S3	1B.3	130–4,595 ft (40–1,400 m)	Cismontane woodland, valley and foothill grassland.	May–September	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Stebbins' morning-glory <i>Calystegia stebbinsii</i>	–	S3	1B.2	605–3,575 ft (185–1,090 m)	Chaparral (openings) and cismontane woodland.	April–July	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Stebbins' phacelia <i>Phacelia stebbinsii</i>	–	S3	1B.2	2,001–6,594 ft (610–2,010 m)	Cismontane woodland, lower montane coniferous forest, meadows, seeps.	May–July	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Sticky pyrrocoma <i>Pyrrocoma lucida</i>	–	S3	1B.2	2,295–6,400 ft (700–1,950 m)	Lower montane coniferous/ yellow pine forest; Great Basin scrub; meadows, seeps; alkaline and clay environments.	July–October	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Tompkins' sedge <i>Carex tompkinsii</i>	–	R, S3S4	4.3	1,380–6,005 ft (420–1,830 m)	Chaparral, cismontane woodland, lower and upper montane coniferous forest.	May–July	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area.
True's manzanita <i>Arctostaphylos mewukka</i> ssp. <i>truei</i>	–	S3	4.2	1,395–4,560 ft (425–1,390 m)	Chaparral and lower montane coniferous forest.	February–July	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area.
True's mountain jewelflower <i>Streptanthus tortuosus</i> ssp. <i>truei</i>	–	S1S2	1B.1	2,510–2,820 ft (765–860 meters)	Lower montane coniferous forest. Mesic environments. Partial shade on steep rocky slopes.	June–July	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area. Outside known elevation range for species.
Van Zuuk's morning-glory <i>Calystegia vanzuukiae</i>	–	S2	1B.3	1,640–3,870 ft (500–1,180 m)	Chaparral and cismontane woodland.	May–August	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area.

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Yosemite tarplant <i>Jensia yosemitana</i>	–	S3	3.2	3,935–7,545 ft (1,200–2,300 m)	Lower montane coniferous forest, meadows and seeps.	(April) May–July	Low. Limited suitable habitat within the Project area. No known occurrences within two miles of the Project area. Outside known elevation range for species.
Invertebrates							
Monarch butterfly <i>Danaus plexippus</i>	PT	–	N/A	In western North America they overwinter along the Pacific coast near Santa Cruz and San Diego. Breed throughout California.	Feed on nectar of flowers and rely exclusively on milkweed species egg laying.	Spring–summer	Very Low to Nil. No suitable habitat (milkweed sp.), and no known occurrences within two miles of the Project area.
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	T	–	N/A	Scattered throughout Central Valley, Coast Range, and Southern California.	Vernal pools.	Winter–Spring	Very Low to Nil. No suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Vernal pool tadpole shrimp <i>Lepidurus packardii</i>	E	–	N/A	Scattered throughout California’s Central Valley including Shasta through Tulare counties, and Alameda and Contra Costa counties.	Ephemeral freshwater habitats. Alkaline pools, clay flats, vernal lakes, vernal pools, vernal swales, seasonal wetlands.	Winter–Spring	Very Low to Nil. No suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Western bumble bee <i>Bombus occidentalis</i>	–	CE	N/A	Pacific coast and western interior of North America, from Arizona, New Mexico and California, north through the Pacific Northwest and into Alaska.	Open flowering grasslands, savannas, and alpine meadows. Do not depend on one flower type.	Spring–Summer	Very Low to Nil. Limited to no suitable habitat, and no known occurrences within two miles of the Project area.
Amphibians and Reptiles							
California red-legged frog <i>Rana draytonii</i>	T, X	SSC	N/A	Coastal Range of California, foothill range of Sierra Nevada mountains.	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation.	Year-round	Low. Limited suitable habitat within the Project area. No known occurrence within two miles of the Project area; however, the Project is located within two miles DCH Unit NEV-1.
Foothill yellow-legged frog (Northeast/Northern Sierra Clade) <i>Rana boylei</i>	–	T	N/A	In California, found from near sea levels to 6,365 ft (1,940 m), mostly distributed throughout the foothill portions of most drainages from the Oregon border to the San Gabriel River.	Rocky streams and rivers with open sunny banks. Streams may be in forests, chaparral, and/or woodlands.	Year-round	Moderate. Suitable habitat within the Project area. Known occurrence two miles to the southwest of the Project area.
Northwestern pond turtle <i>Actinemys marmorata</i>	PT	SSC	N/A	In California, northern California south through the Central Valley typically below 5,000 ft (1,524 m) elevation.	Slow moving streams, marshes and ponds, typically less than 4,000 ft (1,219 m) in elevation.	Spring–fall	Moderate. Suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Fish							
Central California roach <i>Hesperoleucus symmetricus symmetricus</i>	N/A	SSC	N/A	In California, found in varying habitats from Bay Area streams and Sacramento Valley streams to mountain foothill streams.	Mainly found in small warm streams but are capable of thriving in larger colder streams with diverse conditions. May occupy several habitat types and have tolerance for a range in temperature and levels of dissolved oxygen.	Year-round	Low. Limited to no suitable habitat within the Project area. However, potential suitable may occur downstream of the Project area. No known occurrences within two miles of the Project area.

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Common Name Scientific Name	Listing Status			Geographic Distribution	Preferred Habitat	Identification Period	Level of Potential of Occurrence within Project Area
	Federal	State	CNPS				
Birds							
Bald eagle <i>Haliaeetus leucocephalus</i>	D, BGEPA	E, FP	N/A	North America including all continuous United States (U.S.) Observed year-round in northern California.	Typically nest in forested areas adjacent to large bodies of water typically away from heavily developed areas. Prefer tall, mature coniferous or deciduous trees that afford a wide view of the surroundings. In winter, this species may be seen in dry, open uplands if there is access to open water for fishing.	Year-round	Moderate. Suitable habitat present within and adjacent to the Project area. No known occurrences of bald eagles nesting within two miles of the Project area.
California condor <i>Gymnogyps californianus</i>	E, EXPN	E, FP	N/A	Reintroduced to mountains of southern and central California, Arizona, Utah, and Baja California.	Foraging areas are in open grasslands and can be far from primary nesting sites. Nesting habitats range from scrubby chaparral to forested mountain regions up to approximately 6,000 ft (1,829 meters) elevation.	Year-round	Very Low to Nil. Out of species known range. No known occurrences within 3 miles of the Project area.
California spotted owl (Sierra Nevada DPS) <i>Strix occidentalis occidentalis</i>	PT, BCC	SSC	N/A	Found throughout northern California extending into southern California along the Sierra Nevada, Coastal, and transverse ranges.	Multi-layered forest habitat with high canopy closure with a mixture of tree sizes and densities, including large diameter old-growth trees for nesting and roosting. Found in elevations up to approximately 8,500 ft (2,591 m).	Year-round	Low (nesting). Limited suitable habitat within the Project area. Known occurrences and protected activity centers within two miles of the Project area.
Cooper's hawk <i>Accipiter cooperii</i>	–	WL	N/A	Southern Canada, U.S. and Central America. Common year-round in California.	Forests and woodlands including dense forests and leafy backyards; prefer to nest in trees on flat ground rather than slopes.	Year-round	Moderate. Suitable habitat exists within the Proposed Project area. One known occurrence approximately two miles to the west of the Project area.
Great blue heron <i>Ardea herodias</i>	–	–	N/A	Occur throughout North America. Common year-round in northern California.	Freshwater and saltwater habitats including grasslands and agricultural fields. Most breeding colonies are located within 2–4 miles of feeding areas, often in isolated swamps or on islands, and near lakes and ponds bordered by forests.	Year-round	Low (nesting). Limited suitable habitat within the Project area. One known occurrence within two miles of the Project area along northeastern shore of Scotts Flat Reservoir from 2008.
Nesting raptors and other migratory birds	MBTA	FGC	N/A	Migrants and resident species.	Tree, shrub, ground, and riparian vegetation.	February–August	Moderate. Suitable habitat present within and adjacent to the Project area.
Mammals							
Gray wolf <i>Canis lupus</i>	E	E, S1	N/A	In California, nine packs are known to occur within four areas within Lassen, Modoc, Shasta, and Tehama Counties.	Generalists. In California, this species is often found in forested habitats including high prey availability, often on public lands with low road density.	Year-round	Low. Limited suitable habitat within the Project area. According to the CNDDB, there are no known occurrences within 3 miles of the Project area. However, gray wolves are known to occur in the region.

Federal
E = Endangered under the FESA
T = Threatened under the federal FESA
C = Candidate for listing under the federal FESA
PT = Proposed Threatened under the federal FESA

DPS = Distinct Population Segment
BGEPA = Bald and Golden Eagle Protection Act
MBTA = Migratory Bird Treaty Act
EXPN = Experimental population, Non-essential
X = Designated Critical Habitat
– = No listing

Sources: Calflora 2026, CDFW 2025, CDFW 2026a; CNPS 2026a, CNPS 2026b, CornellLab 2026, Nafis 2026, Stebbins and McGinnis 2012, University of California 2025, USFWS 2026a, USFS 2026, USFWS 2023a, USFWS 2023b, Xerces Society 2026.

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State
E = Endangered under the CESA
CE = Candidate Endangered under the CESA
R = Rare under the California Native Plant Protection Act
SSC = Species of Special Concern
FP = Fully Protected
FGC = California Fish and Game Code
– = No listing State Rank (plants and wildlife)
S1 = Critically Imperiled
S2 = Imperiled
S3 = Vulnerable
S4 = Apparently Secure
0.1 = Seriously threatened in California
0.2 = Fairly threatened in California
0.3 = Not very threatened in California

CNPS
1A = Plants presumed extirpated in CA and either rare or extinct elsewhere
1B = Plants rare, threatened, or endangered in California and elsewhere
2A = Plants presumed extirpated in CA but more common elsewhere
2B = Plants rare, threatened, or endangered in California but more common elsewhere
3 = Plants about which more information is needed – a review list
4 = Plants of limited distribution – a watch list
R = Rare

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3.4.3.2 Field Studies

Reconnaissance-level biological resources surveys were conducted for this Project on January 17, 2025 and February 2, 2026. Additionally, other biological field surveys were conducted in the vicinity of NID's Scotts Flat Lower Connector Trail Project in January 2021 (NID 2021).

3.4.3.2.1 Special Status Plants

A species suitability analysis evaluating the potential to occur within and near the Project area was completed for all plant species that were identified through background research. This analysis weighed Project area ecological characteristics and suitability with individual species suitability requisites, including vegetation community type, habitat availability, elevation, soils, and known occurrences in the Project region documented by Calflora, CDFW, and CNPS (CDFW 2026a, USFWS 2026a, CNPS 2026a, Calflora 2026). A level for "potential of occurrence" within the Project area was evaluated and applied to each of the special status plant species identified in **Table 3.4-1**.

Of the 30 plant species identified in the background research as having the potential to occur within the Project area, one species (giant checkerbloom [*Sidalcea gigantea*]), was identified as having a high potential to occur and three species (Butte County fritillaria [*Fritillaria eastwoodiae*], California lady's-slipper [*Cypripedium californicum*], and Humboldt lily [*Lilium humboldtii* ssp. *Humboldtii*]), are further discussed in the Impact Analysis section below.

Due to the moderate potential for three special status plant species to occur within the Proposed Project area and the requirement by CDFW survey protocols that surveys for seasonal plants are only good for 1 year, MM BIO-2 Pre-Construction Botanical Surveys, would be conducted prior to construction during the June mid-bloom period to reassess the presence of special status plant species in the Proposed Project areas with suitable habitat for the four special status species identified as having a moderate and high potential to occur.

Additionally, environmental awareness training would be required through implementation of MM BIO-1 Pre-Construction Worker Environmental Awareness Training. This training would educate construction staff to recognize species listed in **Table 3.4-1** that have the potential to occur and any other special status species identified during pre-construction surveys, to stop work in the immediate area in the event of identification and avoid/or mitigate to appropriate standards any encountered special status plant and animal species.

Lastly, indirect impacts on special status plant species could result if construction equipment, personnel, or erosion control materials were to introduce non-native or invasive species that have the potential to inhibit the success of native species survivorship by increasing competition for resources. To reduce the potential spread of invasive species MM BIO-3 Reduce the Spread and Introduction of Invasive Noxious Weeds and Other Aquatic Invasive Species would be implemented. MM BIO-3 would require NID to reduce the potential introduction or spread of invasive noxious weeds by requiring BMPs during construction to appropriately clean and inspect construction equipment brought in from other construction sites. Additionally, any imported topsoil, mulch, and seed used in Proposed Project-related activities (e.g., restoration, reseeding, erosion control, and soil stabilization) shall be certified weed-free. With the implementation of MM BIO-1, BIO-2, and BIO-3, potential impacts on special status plants would be less-than-significant.

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3.4.3.2.2 Special Status Wildlife

Based on the results of desktop research using various resources listed above, 14 special status wildlife species were identified as having the potential to occur in the Project region or have been known to occur within two miles of the Project area (**Table 3.4-1**). The Project area has been evaluated to determine habitat suitability and the level of potential occurrence for each of these special status wildlife species as well as nesting raptors and migratory birds. Based on desktop analysis and habitat assessment, 10 special status wildlife species were found to have a low or low to nil potential to occur within the Project area and are therefore not discussed beyond the initial analysis. Four wildlife species as well as nesting raptors and other migratory birds have a moderate potential to occur within the Project area and are discussed further below within the Impact Analysis section below. The California red-legged frog, foothill yellow-legged frog, and California spotted owl are also discussed below given their high profile locally and/or their recent listing status under the CESA/FESA.

3.4.4 Impact Analysis

IV. BIOLOGICAL RESOURCES Would the Project:	Potentially Significant Impact	Less-than-significant with Mitigation Incorporation	Less-than-significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species in local or regional plans, policies, or regulations, or regulated by the CDFW or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish or U.S. Fish and Wildlife Service?		X		
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		X		
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		X		
f) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?				X

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- a) ***Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species in local or regional plans, policies, or regulations, or regulated by the CDFW or USFWS?***

Finding: Less-than-significant with Mitigation

Species listed in local or regional plans, policies, or regulations, or regulated by the CDFW or USFWS, are called special status species. Special status species within the Project area were identified by a desktop query of local general plans, and CNPS, CDFW, and USFWS lists and databases to identify a list of species known to occur within the Project area and vicinity. As noted above, that query was then refined by further research and supporting documents and reports on nearby projects to identify habitats that support special status species and/or the species themselves that could occur on or around the Project area where they could potentially be adversely impacted by Project construction or operation. The special status species query identified 37 special status plant species and 11 wildlife species as well as nesting migratory birds and raptors having the potential to occur within the region surrounding the Project (Table 3.4-1).

The Proposed Project would cause temporary construction-related impacts during the dry season, roughly April through December for each of the four years, 2027–2030. The Project has the greatest potential for impacts to species with a moderate or high potential to occur within the Project area determined by high habitat suitability or by the species' variable range and mobility. While the potential for significant impacts to species with low or very low or nil potential to occur is possible, it is unlikely due to limited or no suitable habitat and/or a species' limited mobility from a nearby occurrence to reach the Project area. The potential impacts to species with a moderate potential or high potential to occur are discussed in the following sections. Species with a low potential to occur but considered high profile or locally significant are also discussed below.

3.4.4.1.1 Potential Impacts to Special Status Plant Species

Of the 37 special status plant species identified in Table 3.4-1, three species have a moderate potential to occur within the Project area. These species include Butte County fritillaria, giant checkerbloom, and Sierra blue grass. It is anticipated that impacts to these species would be very unlikely because they would be along paved or gravel roads, and/or staging areas where these plants do not typically grow. However, there is a higher potential to find special status plant species in the newly constructed access roads or non-disturbed areas.

Mitigation Measure BIO-2 would require NID to conduct surveys during the blooming season for these plants prior to construction to determine whether these species are present. If special status plant species are observed, the road alignment and/or staging areas will be modified to avoid the plant(s) and/or a 5-foot buffer will be established (using stakes, flagging, or other similar methods) to protect the plants during construction activities, as appropriate. If avoidance of the plant(s) is not practicable, NID will consult with the appropriate resource agencies to determine an appropriate avoidance and protection measure considering the plant species, site-specific habitat characteristics, and the nature of construction activities to be conducted that may disturb the plant. The avoidance and protection measure would be implemented as part of the Project.

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3.4.4.1.2 Potential Impacts to Special Status Wildlife Species

Of the 11 special status wildlife species identified in **Table 3.4-1**, four species as well as migratory birds and raptors were found to have a moderate or high potential to occur within the Project area. These species, along with the federally listed California red-legged frog, state listed foothill yellow-legged frog, and federally threatened California spotted owl are also discussed below.

California Red-legged Frog

Federal Status: Threatened, DCH; State Status: SSC

The California red-legged frog is listed as federally threatened and as a California SSC. The majority of a California red-legged frog's life is spent in or near aquatic habitats, which the species requires for breeding (USFWS 2002, USFWS 2010). The California red-legged frog occurs at elevations between 0 and 5,000 ft (0–1,524 meters) amsl (USFWS 2006). Typical aquatic habitat characteristics include water depth of at least 2.5 ft, largely intact emergent or shoreline vegetation (e.g., cattails [*Typha* spp.], tules [*Scirpus* spp.], or willows (*Salix* sp.) and absence of competitors or predators, such as the American bullfrog (*Lithobates catesbeiana*) and largemouth bass (*Micropterus salmoides*) (USFWS 2010). Both aquatic breeding habitat and non-breeding aquatic habitats are essential to the survival of California red-legged frog populations. Aquatic breeding habitat is characterized mainly by bodies of freshwater that hold water for a minimum of 20 weeks, while non-breeding aquatic habitat may hold water for a shorter period of time, but provide refuge from predators, foraging, shelter, and aquatic dispersal for both adult and juvenile California red-legged frog (USFWS 2006).

Upland habitat may include grasslands, woodlands, and riparian plant species (USFWS 2006), while dispersal habitat is considered upland or riparian habitat within 2.2 miles (3.5 kilometers) of areas occupied by California red-legged frog. Dispersal habitat may include various natural or altered habitats, including agricultural fields. Fellers and Kleeman (2007) and Bulger et al. (2003) found that migration corridors can be less than "pristine" (e.g., closely grazed fields, plowed agricultural land) and observed that California red-legged frog did not avoid or prefer any landscape feature or vegetation type. However, according to the USFWS (2006), the presence of dispersal habitat can also be affected by dispersal barriers. For example, the Project area is located on the opposite side of State Highway 20 and approximately 3.25 miles from the closest known occurrence of California red-legged frog (CDFW 2026a).

Both individuals as well as DCH are protected under federal and state law. The disturbance of its occupied upland or aquatic habitats may result in direct impacts to the California red-legged frog, with the potential for individuals to be impacted during construction. Potential indirect impacts include the changes in upland, aquatic non-breeding, and dispersal habitats due to changes in vegetation cover, structure, and composition within the Project area and degradation of aquatic non-breeding habitat due to potential erosion and sedimentation as a result of ground disturbance.

As previously mentioned, the southern border of DCH Unit NEV-1 is located approximately 1.5 miles to the northwest of the Project area south of Tyler Foot Road and north of State Highway 20 (USFWS 2010). Although the Project area is within the historic range of the California red-legged frog (USFWS 2002), there are no records of historic or recent occurrences of California red-legged frog within the Project area or within three miles of the Project area (CDFW 2026a).

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A habitat assessment survey was conducted in the Project area on January 16, 2025, as well as a site assessment in 2018 for the Scotts Flat Reservoir Lower Plunge Pool Inspection Project (NID 2018). No individuals or suitable habitat was observed within the Project area, and therefore, both surveys conclude that there were no essential components for California red-legged frog breeding present within the Project area. Due to the proximity of the closest known occurrence, lack of aquatic connectivity for dispersal, and lack of suitable habitat within the Project area, the California red-legged frog is highly unlikely to occur within the Project area and therefore, is not likely to be affected by the Proposed Project.

Foothill Yellow-Legged Frog (Northeast/Northern Sierra Clade)

Federal Status: None; State Status: Threatened

The Project area is within the range of the Northeast/Northern Sierra Clade of foothill yellow-legged frog, which was listed as state Threatened in February 2020 (CDFW 2019b). Foothill yellow-legged frogs are active mainly during the day, and almost exclusively are found near water. They are typically found in rocky streams and rivers with open, sunny banks, within woodland or chaparral habitats, at elevations from sea level up to approximately 6,000 ft (1,829 meters) (Stebbins and McGinnis 2012). They may also be found in isolated pools, vegetated backwaters, and deep shaded spring-fed pools. When threatened, foothill yellow-legged frogs dive to the bottom of the stream seeking cover and hide in rocks or litter (Nafis 2026). Rarely heard, the foothill yellow-legged frog call is a low-pitched and faint single note, including a raspy series of four to six notes per second. Calls may also include grunts and oinks, are made primarily under water (occasionally in the air), and may be made during the day or night (Nafis 2026).

Mating and egg laying occurs in streams and rivers from April until early July, after streams have slowed from winter runoff. Breeding habitat within rivers and large streams are often located near the confluence of tributary streams in sunny, wide, shallow reaches (Kupferberg 1996, Yarnell 2005, GANDA 2008, Peek 2010). In contrast to cooler, deeper, closed-canopy sites, these areas are highly productive (Catenazzi and Kupferberg 2013). Egg masses are typically laid in shallow, slow moving water on the downstream side of submerged rocks, pebbles, vegetation, bedrock, or logs to prevent them from being washed away (Kupferberg 1996, Wheeler et al. 2006). Egg masses are tennis ball- to softball-sized, including approximately 300 to 2,000 eggs. Eggs hatch within 5 to 37 days, depending on water temperature. Tadpoles transform in three to four months (July–October) (Nafis 2026).

During the non-breeding season, foothill yellow-legged frogs typically remain within approximately 10 ft (three meters) from the water's edge and tend to select sunny areas with limited canopy cover close to riffles and pools (Zweifel 1955, Hayes and Jennings 1988, Van Wagner 1996, Welsh et al. 2005, Haggarty 2006, Bourque 2008, Gonsolin 2010, Welsh and Hodgson 2011). Food availability, ability to thermoregulate (e.g., basking sites and cool refugia), adequate water, cover from predators, and the absence of non-native predators are the key components of suitable non-breeding habitat (Hayes and Jennings 1988, Van Wagner 1996, Catenazzi and Kupferberg 2013).

Known and potential predators of foothill yellow-legged frog include (but are not limited to) gartersnakes (*Thamnophis* spp.), dragonfly (*Aeshna walkeri*) nymph, signal crayfish (*Pacifastacus leniusculus*), Sacramento pikeminnow (*Ptychocheilus grandis*), rough-skinned newt (*Taricha granulosa*), American bullfrog, California red-legged frog, American dipper (*Cinclus mexicanus*), American robin (*Turdus migratorius*), and raccoon (*Procyon lotor*) (CDFW 2019b).

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There is one known record of foothill yellow-legged frog located approximately two miles southeast of the Project area in Greenhorn Creek (CDFW 2026a), and according to the study completed in 2021 for NID's Scotts Flat Lower Connector Trail Project, the Scotts Flat Powerhouse discharge channel and Deer Creek represent marginal breeding and dispersal habitat for the foothill yellow-legged frog (NID 2021). A habitat assessment and reconnaissance-level field survey was conducted by a Stantec biologist in January 2025 within the Project area including approximately 300 ft downstream of the Scotts Flat Powerhouse discharge channel which ultimately connects to Deer Creek. Although no observations of foothill yellow-legged frog were made during surveys conducted in January 2025 or January 2021 for NID's Scotts Flat Lower Connector Trail Project (NID 2021), suitable habitat exists within Deer Creek, downstream of the Proposed Project area.

The suitability of the habitat below the Proposed Project area may be reduced by 1) unpredictable variation in flow, which typically precludes breeding for this species (Hayes et al. 2016), and 2) with the known presence of potential predators (i.e., American bullfrog and various fish species) (NID 2021, NID 2018); however, these areas contain perennial watercourses that contain rocky substrate that may provide potential breeding habitat as well as open areas suitable for basking. Therefore, there is a moderate potential for the foothill yellow-legged frog to occur in the Proposed Project area. Therefore, the Proposed Project ground disturbance footprint was designed to minimize impacts to stream and riparian habitats with no ground disturbance in the channel below the plunge pool. However, given there will be work upstream of the channel and dewatering to the channel, despite the limited habitat characteristics, NID has proposed protective measures to further avoid the potential for impacts to foothill yellow-legged frog. With the implementation of MM BIO-1: Pre-Construction Worker Environmental Awareness Training and MM BIO-4: Avoid or Minimize Impacts to Foothill Yellow-Legged Frog, potential impacts to the foothill yellow-legged frog will be less-than-significant.

Northwestern Pond Turtle

Federal Status: Proposed Threatened; State Status: SSC

Two species of the western pond turtle were petitioned for listing as threatened under the FESA on October 3, 2023. The USFWS issued a Proposed Rule (88 Federal Registrar 68370) for listing both the northwestern pond turtle (*Actinemys marmorata*) and the southwestern pond turtle (*Actinemys pallida*) as threatened (USFWS 2023a). If the Proposed Rule is finalized, the western pond turtle will be added to the list of federally threatened wildlife and extend FESA protection to them. In California, the two species of western pond turtle remain SSC.

The Project area is within the range of the northwestern pond turtle, which is found in Washington, Oregon, and Nevada, as well as northern and central California. This species requires both aquatic and upland habitats throughout their life cycle, and although maximum lifespan is unknown, some can live to be over 55 years old in the wild (USFWS 2023a). Reproductive adults, especially females, are critical for population stability. The greatest ongoing threats to both species of turtle in the western US are worsening drought conditions, habitat loss and fragmentation, and predation by invasive species, which primarily include non-Native American bullfrogs (Nafis 2026).

Mating and egg laying occurs primarily in April and May. However, some females lay two clutches in a year while others lay eggs every other year. Sometime between late April and August, females climb onto land to dig a nest, usually along stream or pond margins in areas with full sunlight, where they lay a clutch

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of 2–11 eggs. The length of incubation is not known however, it may vary with altitude and latitude. Hatchlings may emerge in late summer or fall, but some turtles may overwinter in the nest and emerge the following spring (Nafis 2026).

The northwestern pond turtle may be found in a variety of habitats including ponds, lakes, rivers, streams, creeks, marshes, irrigation ditches with abundant vegetation with either rocky or muddy bottoms, as well as in woodlands, forests, and grasslands. In streams, they prefer pools to shallower areas. This species requires logs, rocks, cattail mats, and/or exposed banks for basking. Northwestern pond turtles eat a wide variety including aquatic plants, invertebrates, amphibian eggs and larvae, crayfish, carrion, and occasionally frogs and fish (Nafis 2026).

According to the CNDDDB, there are no recorded occurrences of northwestern pond turtle within two miles of the Project area. No turtles were observed during biological surveys conducted in January 2025 and January 2021 for the Scotts Flat Lower Connector Trail Project (NID 2021). However, suitable aquatic habitat for northwestern pond turtle was observed during both habitat assessments conducted by a Stantec biologist in January 2025 and in January 2021 within 325 ft of the Scotts Flat Powerhouse discharge channel and Deer Creek. Therefore, northwestern pond turtle could potentially occur in the Proposed Project area and given they inhabit basking and ponded areas, like the plunge pool. However, with the implementation of MM BIO-1: Pre-Construction Worker Environmental Awareness Training and MM BIO-5: Avoid or Minimize Impacts to Northwestern Pond Turtle, impacts to the northwestern pond turtle will be less-than-significant.

Bald Eagle

Federal Status: Delisted, Bald and Golden Eagle Protection Act; State Status: Endangered, Fully Protected

The bald eagle (*Haliaeetus leucocephalus*) is a large raptor with a solid brown back, prominent white head and tail, and large yellow beak as an adult and mottled brown and white plumage as a juvenile. They are found in North America from Alaska and Canada south into the lower 48 states and extending into northwest Mexico (CDFW 2026d). The bald eagle is most often found near lakes, rivers, and coasts with ample prey and large trees suitable for constructing their large stick nests. In California, most breeding territories are located in northern California, and wintering bald eagle may be found throughout most of California at various bodies of water including some rangelands and coastal wetlands. They mainly prey on fish and waterfowl but scavenge opportunistically. Bald eagles are a migratory species with high fidelity to their nesting and wintering territories (CDFW 2026d, USFWS 2026d).

There are no known nesting locations within two miles of the Project area according to the CNDDDB; however, bald eagles are regularly observed foraging within the vicinity of the Project area at Scotts Flat Reservoir (pers. communication B. Bezy 2024). Scotts Flat Reservoir and the surrounding forest provide suitable nesting and roosting habitat for this species. Although no nests have been observed along the reservoir, observed behavior suggests a nest may be located in the upper reaches of Deer Creek downstream of Scotts Flat Reservoir. Therefore, with the implementation of MM BIO-1: Pre-Construction Worker Environmental Awareness Training and MM BIO-6: Avoid Disturbance to Nesting Raptors and Other Nesting Migratory Birds, potential impacts to the bald eagle will be less-than-significant.

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California Spotted Owl (Sierra Nevada Distinct Population Segment)

Federal Status: Proposed Threatened (Sierra Nevada DPS); State Status: SSC

On February 23, 2023, the USFWS issued a Proposed Rule (88 Federal Registrar 11600) for listing the Coastal-Southern California DPS of California spotted owl as endangered, and the Sierra Nevada DPS as threatened under the FESA (USFWS 2023b). If the Proposed Rule is finalized, the two DPSs will be added to the list of endangered and threatened wildlife and extend FESA protections to them. As a candidate species, the California spotted owl is considered fully protected under the FESA.

A medium-sized owl, the California spotted owl is one of three subspecies of the spotted owl: the California spotted owl (*Strix occidentalis occidentalis*), the northern spotted owl (*Strix occidentalis caurina*), and the Mexican spotted owl (*Strix occidentalis lucida*). Both the northern and Mexican subspecies are listed as threatened by the USFWS. The three subspecies occupy geographically distinct areas, with the California spotted owl in the southern Cascades south throughout the Sierra Nevada mountains, the mountainous regions of southern California, and the central coast ranges at least as far north as Monterey County (Gutiérrez and Barrowclough 2005).

All subspecies possess similar characteristics: dark eyes, dark to medium brown coloring, a white spotted head and neck, and white mottling on the chest and abdomen, and females tend to be slightly larger (USFWS 2017, USFWS 2023b). The elevation of known nest sites ranges from approximately 1,000–7,700 ft (305–2,347 meters) amsl, with about 86 percent occurring between 3,000 and 7,000 ft. They occur throughout the forests of the western Sierra Nevada mountain range from Shasta south to the Tehachapi Pass, while the eastern side of the Sierra Nevada has a limited amount of suitable habitat and fewer numbers of occupancy. Within the Sierra Nevada, California spotted owl prefer multi-layered, mature mixed-conifer and yellow pine forest, but may also use riparian/hardwood and red fir forests as well where they may nest, roost, and forage on rodents such as northern flying squirrel (*Glaucomys sabrinus*) and woodrat (*Neotoma* sp.) (USFWS 2017). California spotted owl nests are found most often in cavities within the Sierra region, and they do not typically nest every year as nesting largely depends on the weather before and during breeding season, which begins typically mid-February, with peak egg laying (1 to 3 eggs) in mid-April (USFWS 2017, USFWS 2023b).

There are many positive observations of the California spotted owl within two miles of the Project area, including five identified activity centers. The majority of the observations are located primarily to the north of the Project area at distances greater than one mile from the Project area. The closest activity center (NEV0038) is located approximately 0.6 miles to the west of the Project area with the most recent detection of a pair of owls in 2003 (CDFW 2026a, Figure 3-1).

No evidence of species presence was detected during the reconnaissance-level biological surveys in January 2021 and January 2025 that included the Proposed Project area (2025) and the surrounding area (2021). Due to lack of suitable habitat within the Project footprint, there is a low potential for this species to occur within the Project area. However, Sierran mixed conifer habitat is present on the slopes above the Scotts Flat Powerhouse discharge channel and along Deer Creek and may support nesting and/or foraging California spotted owl. Therefore, with the implementation of MM BIO-1: Pre-Construction Worker Environmental Awareness Training, MM BIO-6: Avoid Disturbance to Nesting Raptors and Other Nesting Migratory Birds, and MM BIO-7: Avoid Disturbance to California Spotted Owl, potential impacts to this species will be less-than-significant.

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Cooper's Hawk

Federal Status: None; State Status: Watch List

The Cooper's hawk (*Accipiter cooperii*) is a medium-sized raptor commonly found in woodland habitats year-round throughout the US. Incredibly maneuverable, this species is often observed hunting within cluttered canopies for prey including other birds and small mammals such as chipmunks, hares, mice, squirrels, and bats (CornellLab 2026). Cooper's hawks construct their nests typically 25–50 ft above the ground in a variety of tree species. Nests are typically built within a crotch of the tree, on a horizontal branch, or on top of a pre-existing foundation such as an old nest or clump of mistletoe (CornellLab 2026, Audubon 2026).

According to the CNDDDB, there is one confirmed nesting location approximately two miles west of the Project area from 2014 (CDFW 2026a). The forested habitat surrounding the Project area provides suitable nesting and roosting habitat for this species, and therefore, there is a moderate potential for this species to occur immediately adjacent to or in the vicinity of the Project area. However, with the implementation of MM BIO-1: Pre-Construction Worker Environmental Awareness Training and MM BIO-6: Avoid Disturbance to Nesting Raptors and Other Nesting Migratory Birds, potential impacts to the Cooper's hawk will be less-than-significant.

Nesting Raptors and Other Migratory Birds

Federal Status: Migratory Bird Treaty Act; State Status: FGC

There is a moderate potential for nesting raptors and other migratory birds protected under the Migratory Bird Treaty Act and California FGC to occur within or immediately adjacent to the Project area, including tree, shrub, cavity, and ground-nesting birds. Project construction activities occurring during the nesting season (approximately February 1 through August 31) have the potential to cause impacts to nesting raptors and other migratory birds, such as disturbance resulting in nest abandonment, the loss of eggs, or direct mortality to a nesting bird, which would be considered a significant impact. To the extent feasible, vegetation removal activities would be conducted during the non-nesting season (approximately September 1 to January 31). If Project construction, including vegetation removal or ground disturbance, were to occur during nesting season, implementation of MM BIO-1: Pre-Construction Worker Environmental Awareness Training and MM BIO-6: Avoid Disturbance to Nesting Raptors and Other Migratory Birds would be required. MM BIO-1 will educate workers to look for active bird nests during construction and the appropriate steps to follow if one is located within the Project area. MM BIO-6 provides measures specific to nesting raptors and other migratory birds and would ensure the facilitation of nesting bird identification and the appropriate avoidance methods. Further, MM BIO-6 would require scheduling disturbance activities during non-nesting season or implementing other prescribed avoidance measures including a pre-construction nesting bird survey within the Project area. Therefore, with the implementation of MM BIO-1 and BIO-6, potential impacts to nesting migratory birds or raptors would be reduced to a less-than-significant level.

3.4.4.1.3 Potential Impacts to Native Aquatic Species

The Project area contains a plunge pool at the base of the spillway (lower plunge pool), the Scotts Flat Powerhouse discharge channel, and a small section of Deer Creek. The Project proposes to dewater the plunge pool as well as potentially alter the water levels of the discharge channel and Deer Creek below.

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Native fish species that have the potential to occur within and/or downstream of the Project area include central California roach, Sacramento pikeminnow, and Sacramento sucker (UC Davis 2022). The dewatering and disruption of flow in these areas has the potential to directly and indirectly impact native aquatic species and their habitat. To avoid and/or minimize potential impacts on native aquatic species and water quality during Project activities, NID would implement MM BIO-8: Native Aquatic Species Rescue and Relocation. MM BIO-8 requires that an aquatic species rescue plan will be prepared prior to any in-water work. This plan would be approved by the CDFW and would include the methodology and procedures required to rescue and relocate native aquatic species stranded during the dewatering and/or diversion process. Additionally, Mitigation Measure HAZ-1 (**Section 3.9**) and Mitigation Measure HYDRO- 1 (**Section 3.10**) will be implemented to ensure all the proper BMPs are in place to reduce impacts to water quality, along with any requirements in the CWA 401, CWA 404, and CDFW 1602 permits/agreement.

b) *Would the Project have a substantial adverse effect on any riparian habitat, sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish or U.S. Fish and Wildlife Service?*

Finding: Less-than-significant with Mitigation

Project activities will take place within the vicinity of the existing spillway, lower plunge pool, and downstream area including the drainage channel to Deer Creek. The Proposed Project has been designed to avoid waters and wetland features to the extent feasible; however, Project activities may result in temporary impacts; specifically, within the narrow band of montane riparian vegetation that is present along the Deer Creek as well as tree removal to develop access roads and staging areas for the Project area.

Therefore, MM BIO-9: Avoid and Minimize Impacts on Riparian Habitat would be implemented to minimize impacts to riparian habitat, including revegetation measures with native species post-construction. In addition, the Proposed Project would disturb more than one acre of land, and therefore, a SWPPP would be required for the Project. The SWPPP would be approved by the Central Valley Regional Water Quality Control Board (CVRWQCB) prior to construction activities and would be designed to protect water quality pursuant to the requirements of the NPDES stormwater permit for construction activities. Specifically, the SWPPP would include BMPs for restoring and stabilizing the Project area during and after construction to minimize and control erosion. Therefore, with the implementation of the SWPPP and MM BIO-9, impacts to riparian habitats within the Project area would be reduced to a less-than-significant level. Additionally, MM HAZ-1 (**Section 3.9**) and MM HYDRO-1 (**Section 3.10**) will be implemented to ensure all the proper BMPs are in place to reduce impacts to riparian habitats and sensitive natural community regulated by the CDFW and USFWS.

c) *Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

Finding: Less-than-significant with Mitigation

Jurisdictional waters of the US (WOTUS) include jurisdictional wetlands as well as all other WOTUS, such as creeks, ponds, and intermittent drainages. Wetlands are defined and identified by the (EPA) and the U.S. Army Corps of Engineers (USACE) under CWA Section 404 as:

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areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (EPA 2024b).

The majority of jurisdictional wetlands in the US meet three wetland assessment criteria: hydrophytic vegetation, hydric soils, and wetland hydrology. Jurisdictional WOTUS can also be defined by exhibiting a defined bed and bank and an ordinary high-water mark. The Project, including access and staging areas, has the potential to impact jurisdictional features including the tributary to Deer Creek, and Project activities would also result in temporary impacts including the dewatering of the lower plunge pool and potential temporary water level fluctuations within the tributary to Deer Creek, below the lower plunge pool. Direct impacts to these features through the direct fill and/or hydrological interruption as a result of Project activities would require a CWA Section 404 permit, which requires completion of a wetland and/or aquatic resources delineation, a USACE verification of that delineation, and proof of compliance with the CWA Section 404. MM BIO-10: Avoid and Minimize Impacts on WOTUS and Waters of the State (WOTS) provides requirements for completing these components of the CWA Section 404 permitting process and would ensure that potential impacts to protected wetlands are adequately quantified and mitigated through the CWA Section 404 permitting process, reducing the potential for substantial adverse effects to a less-than-significant level. Furthermore, because the Project would require a CWA Section 404 permit, a CWA Section 401 WQC would also be obtained. A CWA Section 401 WQC would ensure that the activities of the Project comply with all applicable water quality standards, limitations, and restrictions.

The Project would also implement a Project-specific SWPPP, which would include measures to protect water quality pursuant to the requirements of the NPDES stormwater permit for construction activities. Lastly, MM BIO-9, MM HAZ-1 (**Section 3.9**), and MM HYDRO-1 (**Section 3.10**) will be implemented to minimize any adverse effects on federally protected wetlands. With these MMs implemented the Proposed Project will have a less-than-significant impact on federally protected wetlands.

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

Finding: Less-than-significant

Wildlife movement corridors allow wildlife to travel, migrate, or disperse between significant habitats. Wildlife movement corridors have been recognized by both state and federal agencies (e.g., CDFW and USFWS) as important habitats worthy of conservation. In general, movement corridors comprise areas of undisturbed land cover that connect larger, contiguous habitats. The Project area includes predominantly forested areas and is ranked as ACE Rank 4, which is defined as a Conservation Planning Linkage, likely due to the Project area's close proximity to the presence of the Downieville-Nevada City Mule Deer Herd which occurs within approximately four to nine miles to the north, northeast, and southeast of the Project area (CDFW 2026a).

Although construction activities and/or removal of vegetation could cause temporary disturbance to common wildlife movements, Project construction would be temporary. As a result, Project construction and operation are expected to have less-than-significant impacts on wildlife species movements. Thus,

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the potential impacts to native resident or migratory wildlife species are considered less-than-significant with no mitigation necessary.

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

Finding: Less-than-significant with Mitigation

Chapter 13: Wildlife and Vegetation Element of the Nevada County General Plan defines several policies that aim to protect sensitive species, habitats, protect wildlife corridors, prevent habitat loss, and preserve heritage and landmark trees (Nevada County 1995). The Proposed Project has been designed to avoid waters and wetland features including riparian habitats to the extent feasible; however, Project activities may result in temporary impacts; specifically, within the narrow band of montane riparian vegetation that is present along the spillway channel to Deer Creek as well as tree removal to develop access roads and staging areas for the Project area. Per Chapter 13 of the Nevada County's General Plan, *development projects which have the potential to remove natural riparian or wetland habitat of one acre or more shall not be permitted unless the project conforms with regulations and guidelines of the USFWS, USACE, CDFW, and other relevant agencies.*

Therefore, MM BIO-9: Avoid and Minimize Impacts on Riparian Habitat would be implemented to minimize impacts to riparian habitat, including revegetation measures for native species post-construction and adherence with California FGC Section 1602. In addition, impacts to federally protected wetlands will be less-than-significant with the implementation of MM BIO-10: Avoid and Minimize Impacts on Waters of the United States and WOTS including adherence with CWA Section 404 and 401. Lastly, a Project-specific SWPPP will be prepared to reduce impacts to biological resources.

In Nevada County, in accordance with the Nevada County General Plan Policy 13.2, tree removal may be allowed where necessary to comply with public right-of-way development or dedication, or development of required site access and public utilities (Nevada County 1995). Individual trees or groups of trees shall be protected during construction to prevent damage to the trees and their root systems. NID will "identify and preserve landmark trees where appropriate" in accordance with Policy 13.8. And all native oak tree species with a trunk diameter of 36" or greater shall be protected in accordance with Policy 13.9.

Therefore, with the implementation of MM BIO-9 and BIO-10, the Proposed Project would not conflict with any approved or planned local policies or ordinances protecting biological resources. As such, this potential impact would be considered less-than-significant with mitigation incorporated.

f) *Would the Project conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan?*

Finding: No Impact

The Proposed Project is not located within the boundaries of any existing habitat conservation plan, natural community conservation plan, or other approved local regional, or state habitat conservation plan; and therefore, would not conflict with such provisions (CDFW 2023). Therefore, no mitigation is required.

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3.4.5 Mitigation Measures

3.4.5.1 MM BIO-1: Pre-Construction Worker Environmental Awareness Training

Prior to construction each year, a qualified biologist shall conduct one Worker Environmental Awareness Training (WEAT) for construction personnel. The WEAT shall be given to construction personnel to brief them on how to recognize special status plant species, terrestrial and semi-aquatic wildlife species, and sensitive habitats including the appropriate avoidance measures that could occur in the Project area (i.e., special status plant and wildlife species identification, nesting bird identification and habitat, riparian habitats, relevant BMPs, regulations, etc.). WEAT reference brochures shall also be provided to keep on-site for use by personnel and an environmentally trained foreman for training new Project personnel in the absence of the biologist. If special status species are encountered in the work area, construction shall cease and NID and a qualified biologist shall be notified for guidance before any construction activities are resumed. Depending on the listing status of the observed species and its persistence in the area, NID shall contact the CDFW and/or USFWS for guidance.

3.4.5.1.1 MM BIO-1 Implementation:

Responsible Party: NID shall ensure that a qualified biologist conducts one pre-construction WEAT each year/construction season.

Timing: Prior to the initiation of construction each year work is conducted.

Monitoring and Reporting Program: The WEAT shall be conducted by a qualified biologist, the environmental training reference brochures shall be kept on the construction site, and a sign-in sheet for all personnel required to attend the training shall be kept on file with NID for submittal to CDFW if required.

Standards for Success: Construction personnel are trained in the key characteristics for identifying and avoiding impacts to special status species and sensitive habitats.

3.4.5.2 MM BIO-2: Pre-Construction Botanical Surveys

A qualified biologist would conduct a special status plant survey, in the Project area, during the mid-blooming period (June) to determine whether any special status plant species listed in Table 3.4-1 are present. Surveys would follow protocols designed by CDFW (CDFW 2018) and CNPS (CNPS 2001). To avoid, minimize, and compensate for potential impacts on special status plant species, the following measures are proposed:

- If no special status plants are observed within the construction area, no further measures are required.
- If special status plants are observed within the construction area, construction activities would be reduced or minimized to avoid affecting special status plants.
- A qualified botanist would map the population, place flagging to identify the population location, and install environmentally sensitive exclusion fencing and appropriate signage at an appropriate buffer distance (e.g., ~25 ft), starting from the edge of the special status plant and/or plant

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population. Signage would indicate that the area is environmentally sensitive and not to be disturbed.

- NID would adjust the location of construction activities away from special status plants to the extent practicable.
- If special status plant population cannot be avoided and would directly disturb more than 25 percent of the population (number of plants or extent of occupied habitat), a conservation plan would be implemented in coordination with a qualified botanist and consultation with CDFW. The conservation plan may consist of but is not limited to: plant salvage and relocation; collection and subsequent planting of seed or incorporating seed from native nursery into seed mix used for revegetation efforts; stockpiling, storing, and replacing topsoil containing the local seed bank; or other measures determined practicable based on the species and site conditions.
- For some species and site conditions, conservation efforts may not have a reasonable probability of success; or could result in detrimental effects on existing special status plant populations. In these cases, as determined by a qualified botanist, no conservation measures would be required.

3.4.5.2.1 MM BIO-2 Implementation:

Responsible Party: NID and the contractor. This MM shall be referenced in the contract documents for the Project.

Timing: Pre-construction and during construction.

Monitoring and Reporting Program: All surveys shall be conducted by a qualified botanist and a brief survey report shall be developed and kept on file with NID.

Standards for Success: Special status plants will not be disturbed before, during, or after Project construction activities. If special status plants must be disturbed, the proper mitigation will be determined, as described in the mitigation measure.

3.4.5.3 MM BIO-3: Reduce the Spread and Introduction of Invasive Noxious Weeds and Other Aquatic Invasive Species

Invasive and noxious weeds and invasive species have the potential to directly and indirectly impact plants and other natural native communities at or near the Proposed Project area. To reduce the spread and introduction of weeds and other invasive species, the following measures shall be implemented:

- All Proposed Project-related equipment and vehicles (including tires and mud flaps), watercraft, trailers, large machinery, and other project gear and equipment shall be parked or stored in a designated location where runoff can be contained and not allowed to pass into WOTS, the stream bed, bank, channel (including but not limited to dry, ponded, flowing, or wetland areas), drainages, lakes, or other sensitive habitat.
- All tools, waders and boots, and other equipment that will enter the water prior to entering and exiting the Proposed Project site to avoid the introduction and transfer of organisms shall be decontaminated. Permittee shall decontaminate project gear and equipment that will enter the

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water by utilizing one of three methods in accordance with CDFW's 2022 Aquatic Invasive Species Decontamination Protocol (CDFW 2022).

- Any imported topsoil, mulch, and seed used in Project-related activities (e.g., restoration, reseeding, erosion control, and soil stabilization) shall be certified weed-free.
- For aquatic invasive species, prior to entering the Proposed Project area, all equipment shall be inspected for invasive species and, if any signs of invasive species are found, the equipment shall be cleaned to remove those species in accordance with CDFW's 2022 Aquatic Invasive Species Decontamination Protocol (CDFW 2022).

3.4.5.3.1 MM BIO-3 Implementation:

Responsible Party: NID and the contractor. This MM shall be referenced in the contract documents for the Project.

Timing: Prior to the initiation of construction and with each new piece of equipment and/or materials that enters the Proposed Project area.

Monitoring and Reporting Program: NID shall verify that all equipment and other materials brought on-site are certified weed-free through visual inspection and/or a signed affidavit from the contractor. For invasive aquatic species, NID shall notify CDFW immediately if an invasive species not previously known to occur within the Project area is discovered during work activities by contacting CDFW's Invasive Species Program and shall notify CDFW's North Central Region's Aquatic Invasive Species Coordinator.

Standards for Success: Minimize the potential for introduction of new invasive weed species into the Project area through visual inspection of equipment and/or signed affidavits from the contractor of weed-free certification.

3.4.5.4 MM BIO-4: Avoid or Minimize Impacts to Foothill Yellow-Legged Frog

The Proposed Project area is within the range of the Northeast/Northern Sierra Clade of foothill yellow-legged frog, which is listed as threatened under CESA. Foothill yellow-legged frogs are not known to occur in the Project area. However, suitable habitat for this species was identified within vicinity to the Proposed Project area. As such, the following measures are recommended to avoid or minimize the potential for adverse impacts on foothill yellow-legged frog:

1. Provide training specifically for the foothill yellow-legged frog, which will be included in the Pre-construction WEAT described above in MM BIO-1.
2. The CDFW Designated Biologist shall develop a Pre-Construction Survey Plan for foothill yellow-legged frog and submit it to CDFW for review at least 14 calendar days prior to commencing Proposed Project activities. The Pre-Construction Survey Plan shall include what life-stage(s) shall be surveyed for, survey method(s), and timing of survey(s). The Plan shall provide justification for timing and methodology of survey design (e.g., watershed characteristics, regional snowpack, timing and rate of spring runoff, day length, average ambient air and water temperatures, local and seasonal conditions). If the Proposed Project site has suitable frog breeding habitat, the Pre-Construction Survey Plan shall include performing egg mass/larval surveys.

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3. Within five calendar days prior to entering or working at the Proposed Project site, the CDFW Designated Biologist shall perform a pre-construction survey, as specified in the project-specific Pre-Construction Survey Plan, within the boundaries of the Proposed Project area including a 500-foot buffer zone upstream and downstream of the Proposed Project area that can be accessed by the Designated Biologist. The survey shall include a description of any standing or flowing water. NID shall provide pre-construction survey results as well as notes and observations to CDFW prior to commencing Proposed Project activities. If the Designated Biologist encounters any life stages of foothill yellow-legged frogs during pre-construction surveys or during Proposed Project activities, work shall be suspended in the immediate vicinity, and CDFW shall be notified within 24 hours. Work may not re-initiated in the immediate vicinity until the Permittee has consulted with CDFW and can demonstrate compliance with CESA.

3.4.5.4.1 MM BIO-4 Implementation:

Responsible Party: NID and the contractor. This MM shall be referenced in the contract documents for the Proposed Project.

Timing: A Pre-construction WEAT as specified in MM BIO-1 will be provided for all Project personnel before work begins, and new personnel shall be trained before initiating on-site work. A Pre-Construction Survey Plan will be prepared by a CDFW-approved Designated Biologist and submitted to CDFW for approval prior at least 14 days prior to commencing Proposed Project Activities. Pre-construction surveys for foothill yellow-legged frogs will be conducted by the Designated Biologist within five calendar days prior to entering or working at the Proposed Project site.

Monitoring and Reporting Program: The Pre-Construction Survey Plan will be prepared by a CDFW-approved Designated Biologist and submitted to CDFW for approval 14 days prior to work commencement. Pre-construction survey results shall be provided to CDFW prior to beginning work on the Proposed Project.

Standards for Success: Foothill yellow-legged frog shall not be disturbed or handled without a qualified biologist before, during, or after Proposed Project construction activities.

3.4.5.5 MM BIO-5: Avoid or Minimize Impacts to Northwestern Pond Turtle

The Proposed Project area is within the range of the northwestern pond turtle, which is listed as proposed threatened under the FESA. Northwestern pond turtles are not known to occur in the Proposed Project area; however, suitable habitat for this species was identified within and within the vicinity to the Proposed Project area. As such, the following measures are recommended to avoid or minimize the potential for adverse impacts on northwestern pond turtle:

1. Provide training specifically for the northwestern pond turtle, which will be included in the Pre-construction WEAT described above in MM BIO-1.
2. Within five calendar days prior to starting construction activities, the CDFW-approved Designated Biologist shall survey the Proposed Project site and riparian habitat within 1,400 ft of the impact location for northwestern pond turtle. If a northwestern pond turtle is encountered during surveys, a site-specific avoidance, minimization, and/or relocation plan shall be prepared for review and approval by CDFW. This plan shall be submitted and approved prior to starting construction

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activities within the areas where northwestern pond turtle was discovered. All the measures included in the approved plan shall be implemented during project activities.

3.4.5.5.1 MM BIO-5 Implementation:

Responsible Party: NID and the contractor. This MM shall be referenced in the contract documents for the Proposed Project.

Timing: A Pre-construction WEAT as specified in MM BIO-1 will be provided for all Project personnel before work begins, and new personnel shall be trained before initiating on-site work. Pre-construction surveys for the northwestern pond turtle will be conducted by the Designated Biologist within five calendar days prior to entering or working at the Proposed Project site.

Monitoring and Reporting Program: All surveys shall be conducted by a Designated Biologist. If northwestern pond turtle is encountered during surveys, a site-specific avoidance, minimization, and/or relocation plan shall be prepared for review and approval by CDFW. This plan shall be submitted and approved prior to starting construction activities within the areas where northwestern pond turtle was discovered.

Standards for Success: Northwestern pond turtle shall not be disturbed or handled without a qualified biologist before, during, or after Proposed Project construction activities.

3.4.5.6 MM BIO-6: Avoid Disturbance to Nesting Raptors and Other Nesting Migratory Birds

To the extent feasible, Project activities, including ground disturbance and vegetation removal activities, shall be conducted during the non-nesting season for the region (September 1 to January 31). If construction such as vegetation removal, grading, excavation, etc., that have the potential to disturb nesting birds occurs during the nesting season (February 1 to August 31), a qualified biologist shall conduct a pre-construction nesting bird survey prior to vegetation removal or ground-disturbing activities within the Proposed Project area with the following criteria:

- The surveys should be conducted within one week before initiation of construction if construction is scheduled to occur between February 1 and August 31.
- Surveys shall be conducted within the Proposed Project area including all potential bird nesting habitat for passerine species within 150 ft and raptor species within 500 ft.
 - If no active nests are detected, then no additional mitigation is required.
 - If surveys indicate the presence of nesting birds, the biologist shall establish an appropriate avoidance buffer around the nest in which no work would be allowed until the young have successfully fledged or the nest has been abandoned. The size of the avoidance buffer shall be determined by a qualified biologist and shall depend on the status of the species present, the level of noise or construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, other topographical or artificial barriers, and the sensitivity of the nesting bird to the disturbance. Typically, avoidance buffers are up to 500 ft for raptors and up to 150 ft for passerines. Generally, these distances are

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sufficient (depending on the species and project activities) to prevent substantial disturbance to nesting birds which would cause direct mortality. However, these buffers may be increased or decreased at the discretion of the biologist, as appropriate. Active nest sites shall be monitored periodically throughout the nesting season to identify any sign of disturbance.

- If nesting birds are documented to have established themselves in a given location within the Proposed Project area during pre-existing construction activities, then it shall be assumed that the nesting birds are habituated to the construction activities. Under this scenario, the active nest shall be monitored by a qualified biologist periodically until the young have successfully fledged, or the nest has been abandoned, as described above.
- If active nests are identified on or immediately adjacent to the Project area, then all non-essential construction activities (e.g., equipment storage and meetings) should be avoided in the immediate vicinity of the nest site, but the remainder of construction activities may proceed.

3.4.5.6.1 MM BIO-6 Implementation:

Responsible Party: NID shall ensure that a qualified biologist conducts pre-construction nesting bird survey before initiation of all Project-related activities within the Project area.

Timing: Pre-construction surveys shall be conducted within one week before initiation of construction if construction is scheduled to occur between February 1 and August 31. Any required monitoring of active nests may occur during construction.

Monitoring and Reporting Program: A qualified biologist shall prepare a short survey report detailing the results of the pre-construction nesting bird surveys and any required monitoring. NID shall keep this report on file and provide it to agencies as needed and/or on request.

Standards for Success: No nesting birds are impacted as a result of Project activities.

3.4.5.7 MM BIO-7: Avoid Disturbance to California Spotted Owl

The following measures will be implemented to avoid disturbance and reduce potential impacts to California spotted owl:

- Work area limits will be primarily defined along developed areas (i.e., the spillway and existing campground/access roads).
- New access roads and staging areas will be adjusted to avoid the removal of trees greater than 24 inches at diameter breast height to the greatest extent feasible.
- Loud and continuous Project-related noises will be limited to the greatest extent feasible during the California spotted owl breeding season during February 1 and July 9.

3.4.5.7.1 MM BIO-7 Implementation:

Responsible Party: NID and the contractor. This MM shall be referenced in the contract documents for the Project.

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Timing: Work area limits will be clearly defined prior to Project implementation, and the loud and continuous Project-related noises will be limited to the greatest extent feasible between February 1 and July 9.

Monitoring and Reporting Program: NID shall ensure that the Project area is clearly defined and enforced, and no suitable California spotted owl habitat is removed beyond the Project plans.

Standards for Success: No California spotted owl are impacted as a result of Project activities.

3.4.5.8 MM BIO-8: Native Aquatic Species Rescue and Relocation

To avoid and/or minimize potential impacts on native aquatic species during the dewatering of the plunge pool, an aquatic species rescue plan shall be prepared to describe how native fish and other aquatic species will be rescued and relocated. This plan shall be submitted to CDFW and shall include the methodology and procedures required to rescue and relocate native aquatic species stranded during the dewatering process including, but not limited to, the following:

1. CDFW-approved Designated Biologist(s) shall be on-site immediately prior to and during the dewatering process to conduct any necessary native aquatic species rescue activities in the immediate work area (e.g., fish, frogs).
2. If a special status species (e.g., foothill yellow-legged frog or northwestern pond turtle) is present and in harm's way, this species shall be relocated by a qualified biologist according to the aquatic species rescue plan or species-specific measures per USFWS and/or CDFW guidance.
3. Designated biologist(s) shall relocate all stranded native aquatic species individuals to appropriate suitable habitat outside the work area.

3.4.5.8.1 MM BIO-8 Implementation

Responsible Party: NID. This MM shall be referenced in the contract documents for the Project.

Timing: A written aquatic species relocation plan shall be submitted to CDFW for approval at least 60 days prior to the start of any dewatering or water diversion activity. Aquatic species rescue shall be conducted as needed prior to any in-water work, water diversion, or dewatering is scheduled to take place.

Monitoring and Reporting Program: A copy of the CDFW-approved aquatic species relocation plan must be available on-site. Aquatic species rescue shall be conducted by CDFW-approved Designated Biologists. A post relocation report shall be provided to CDFW including the date and time of capture and relocation, the method of capture, map of locations in relation to the Proposed Project site, and the number and species of fish captured and relocated. The report shall be provided to CDFW within 14 days of completing each fish relocation activity.

Standards for Success: Native aquatic species will not be harmed before, during, or after Proposed Project construction activities.

3.4.5.9 MM BIO-9: Avoid and Minimize Impacts on Riparian Habitat

The Proposed Project may result in temporary impacts to riparian habitat along the Scotts Flat Spillway channel to Deer Creek, which is considered a sensitive natural community. Per California FGC Section

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1602, if the Proposed Project's activities would obstruct the flow of, or alter the bed, channel, or bank of, any stream, a Notification of Lake and Streambed Alteration (LSAA) shall be submitted to the CDFW. If required, a LSAA shall be obtained from CDFW and all conditions of the LSAA shall be implemented.

3.4.5.9.1 MM BIO-9 Implementation

Responsible Party: NID and the contractor. This MM shall be referenced in the contract documents for the Project.

Timing: If required, a CDFW LSAA shall be obtained prior to construction.

Monitoring and Reporting Program: NID shall ensure that, if required, an LSAA shall be obtained prior to construction and the appropriate fees paid to comply with California FGC Section 1602.

Standards of Success: Appropriate permit compliance and compensation, including no net loss of riparian habitat as a result of the Proposed Project.

3.4.5.10 MM BIO-10: Avoid and Minimize Impacts on Waters of the United States and Waters of the State

The Project, including access and staging areas, has been designed to avoid waters and wetland features to the extent practicable. However, the Project would involve vegetation removal and potential dewatering and/or diversion on WOTUS. In addition to MM BIO-9: Avoid and Minimize Impacts to Riparian Habitat, the following measures are recommended to avoid or minimize the potential for adverse impacts on WOTUS and WOTS:

1. Before any discharge of dredge or fill material into WOTUS and WOTS, the required permits/authorizations shall be obtained from USACE and the RWQCB. All terms and conditions of the required permits/authorizations shall be implemented.
2. Before any activities that would obstruct the flow of, or alter the bed, channel, or bank of any stream, a Notification of Streambed Alteration shall be submitted to CDFW. A LSAA shall be obtained from CDFW and all conditions of the LSAA shall be implemented.
3. All WOTUS and WOTS that are temporarily affected by Project construction shall be restored as close as practicable to their original contours within 10 days of the completion of construction activities.
4. Riparian vegetation removal shall be minimized to the greatest extent practicable. Where practicable, vegetation shall be cut with hand tools at ground level to enable regrowth from roots when construction is complete.

3.4.5.10.1 MM BIO-10 Implementation

Responsible Party: NID and the contractor. This MM shall be referenced in the contract documents for the Project.

Timing: Prior to construction, NID shall obtain a CWA Section 404 permit from USACE to comply with CWA Section 404, and a CWA Section 401 WQC from the RWQCB.

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Monitoring and Reporting Program: NID shall ensure that environmental permits shall be obtained prior to construction and the appropriate fees paid to comply with the regulatory agency compensatory mitigation schedule for temporary and permanent impacts to WOTUS or WOTS.

Standards of Success: Appropriate State and federal permit compliance and compensation, including no net loss of WOTUS or WOTS from the Project.

3.5 Cultural Resources

Pursuant to CEQA Guidelines Section 15064.5, a cultural resources study was conducted to inform baseline conditions for cultural resources in the Project area.

3.5.1 Setting

The setting for Cultural Resources are generally categorized by contexts for Precontact Archaeology, Ethnography, and History, as described further, below:

3.5.1.1 Precontact Archaeology

Archaeological research indicates that Indigenous peoples used the Sierra Nevada for thousands of years, though questions remain about cultural chronology and subsistence strategies. The first formal cultural sequence was proposed by Heizer and Elsasser (1953), who identified two surface-defined tool traditions east of the Sierra crest: the Martis Complex and the later Kings Beach Complex. The Martis Complex, defined by nine key traits, is distinguished primarily by heavy reliance on basalt tools, large projectile points, manos and metates, atlatl technology, and a hunting-focused economy supplemented by seed gathering. Similarities to Great Basin and Central Valley traditions suggest broader regional connections.

Later research refined this framework. Elston (1971) identified an earlier “pre-Martis” Spooner Complex (ca. 7,000–3,000 Before Present [BP]), likely reflecting Great Basin groups moving into the Sierra during the Altithermal. He also divided the Martis Complex into two phases (3,000–2,000 BP and 2,000–1,500 BP), documenting shifts toward smaller projectile points, increased use of chert and obsidian, and greater plant processing intensification.

Around 1,500 BP, technological, subsistence, and settlement changes—likely tied to climate change and population growth—marked the decline of Martis traditions and the emergence of the Kings Beach Complex. Kings Beach peoples favored obsidian tools, intensive seed processing, and fishing, and are divided into Early (1,300–700 BP) and Late (700–150 BP) phases based on projectile point styles.

3.5.1.2 Ethnography

Archaeological research shows long-term Indigenous use of the Sierra Nevada, with Heizer and Elsasser (1953) identifying two major cultural traditions: the basalt-focused Martis Complex and the later Kings Beach Complex. Subsequent work refined this sequence by recognizing earlier Great Basin influences,

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dividing the Martis Complex into phases, and documenting shifts toward greater plant processing, smaller obsidian tools, and reduced mobility. Around 1,500 BP, these changes culminated in the emergence of the Kings Beach Complex, characterized by intensive seed processing, fishing, and distinct projectile point styles.

3.5.1.3 History

Efforts to form an irrigation district in Nevada County began in 1917, driven by concerns that local water resources would otherwise be diverted for hydroelectric use or exported to the Sacramento Valley. After surveys and growing regional interest, Nevada County residents voted overwhelmingly in 1921 to create NID. At that time, irrigation was limited and fragmented, but a NID survey identified roughly 125,000 irrigable acres. Beginning in the early 1920s, NID adopted ambitious expansion plans, financed by major bond measures and supported by partnerships, most notably with Pacific Gas & Electric (PG&E) that allowed shared use of water for irrigation and power generation. Through purchases of rival companies and infrastructure, including systems at Bowman Lake and Deer Creek, NID rapidly expanded its water network into Nevada and Placer counties.

The need for additional water storage led NID to develop Scotts Flat Reservoir on Deer Creek. Although identified early as a promising site, construction was delayed by competing projects, the Great Depression, and World War II. Federal funding through the Public Works Administration enabled pre-construction work in the 1930s, and full construction began in 1944. Scotts Flat Dam was built in stages as an earth-fill dam with a reinforced concrete core, outlet tunnel, valve house, and supporting abutments. The first construction phase was completed in 1947, with the spillway finished in 1952.

Major modifications occurred in the early 1960s, when the dam was heightened by 40 ft and a concrete gravity spillway was installed to improve safety and capacity. Ongoing maintenance addressed seepage issues, modernized the valve house, and strengthened abutments. In the 1980s, the facility was adapted for hydroelectric generation, and routine repairs and upgrades continued into the late twentieth and early twenty-first centuries, ensuring the dam's long-term operation and regional importance.

3.5.2 Study Methods

To identify cultural resources within the Project site, the following tasks were completed: 1) A records search and literature review were conducted at the California Historic Resources Information System (CHRIS) at the North Central Information Center (NCIC), located at California State University, Sacramento; 2) a buried sensitivity analysis to assess the potential for buried precontact and historic-era resources; 3) pedestrian surveys of the Project site completed in 2024 by qualified archaeologists.

3.5.2.1 Cultural Resource Records Search

NCIC staff performed a search of the CHRIS cultural resources database on September 26, 2023, for resources located within the Project area and within a 0.25-mile radius (File No. NEV-23-61, Appendix B).

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There is one previously recorded resource within the Project area and one new resource located within 0.25-miles of the Project area (**Table 3.5-1**). One resource, P-29-001154, Snow Mountain Ditch, intersects the Project area just north of the Scotts Flat Dam. The segment of the canal within the Project area has not been evaluated for listing on the National Register of Historic Places (NRHP) or the California Register of Historic Resources (CRHR).

Table 3.4-1 Previous Resources in Proximity to the Project Area

P-number	Trinomial	Description	NRHP/CRHR Evaluation	Location
P-29-001154	CA-NEV-2220H	Snow Mountain Ditch	7 (unevaluated)	Within Project area
P-29-000803	CA-NEV-680H	Cascade Canal	7 (unevaluated)	0.18 miles southeast

Snow Mountain Ditch, P-29-001154, crosses under the existing Dam Road approximately 82 ft (25 meters) north of Scotts Flat Dam. The resource was first recorded in 1981. It is almost nine miles long and spans from north of Scotts Flat Reservoir near the confluence of the North and South forks of Deer Creek to Nevada City. The ditch was initially constructed in 1854 and was in operation until 1972. It carried water from Deer Creek to Sugar Loaf Reservoir in Nevada City and supplied water to mining operations in the area. The resource was most recently updated in 2023. Some individual segments of the ditch have been evaluated for listing on the CRHR or the NRHP, but the resource as a whole has not been evaluated, including the segment that crosses the Project area. Because the resource has not been evaluated, it is assumed eligible for the CRHR and treated as a historic resource for the purposes of this Project.

In addition to the records on file at the NCIC, the Scotts Flat Dam, spillway, and valve house were previously inventoried and evaluated in 2017 (Stantec 2017). Stantec recommended the Scotts Flat Dam, spillway, and valve house as not eligible for the NRHP or CRHR.

Three previous cultural resources studies have been completed within the Project area (**Table 3.5-2**).

Table 3.5-2 Previous Studies within Project Area

Report Number	Title	Year	Author
S-815	Cultural Resource Assessment of the Proposed NID Cascade Flume Replacement Project, Nevada County, California. HRR 05-17-1291	1998	Peak and Associates
S-3463	Archaeological Survey for the Scotts Flat Power Project	1981	Eleanor Derr
S-10387	Lower Scotts Flat Gauging Station Cultural Resources Inventory and Evaluation Nevada County, California	2009	Ric Windmiller

3.5.2.2 Buried Sensitivity Analysis

A sensitivity assessment was conducted to identify the potential for the Project area to contain buried archaeological resources. Geoarchaeological studies for the Project area north of the Scotts Flat Dam suggest that the Scotts Flat area contains pre-Pleistocene age volcanic landforms and that soils in foothill settings on slopes are shaped by surface water erosion/runoff or alluvial/fluvial factors. Landforms in these settings, and in this area, are anticipated to retain a low probability for buried archaeological resources (Meyer and Rosenthal 2008). In other words, the landform and soils predate human occupation

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by many thousands of years, limiting the likelihood of buried archaeological deposits. In the southern portion of the Project area, the installation and construction of the dam and spillway created an artificial landform, and the probability of encountering buried archaeological resources is low.

3.5.2.3 Field Survey

On February 9 and November 8, 2024, and January 13, 2026, Stantec archaeologists completed pedestrian surveys of the Project area. The survey was conducted by walking parallel transects spaced at 5 to 15 meters across the entire Project area. Exposed soils, such as at vehicle tracks and rodent burrows, were closely examined for evidence of buried cultural deposits. Stantec documented the survey with a global navigational satellite system, digital photographs and written notes. Ground visibility was generally poor (1-24 percent), but the entire Project area was successfully surveyed. The survey team located P-29-001154, Snow Mountain Ditch, which crosses under an existing road north of Scotts Flat Dam. No new significant cultural resources were documented within the Project area.

3.5.3 Impact Analysis

V. CULTURAL RESOURCES Would the Project:	Potentially Significant Impact	Less-than- significant with Mitigation Incorporation	Less-than- significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?		X		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c) Disturb any human remains, including those interred outside dedicated cemeteries?		X		

a) *Would the Project cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?*

Finding: Less-than-significant with Mitigation

For a cultural resource to be considered a historical resource (i.e., eligible for listing in the California Register of Historical Resources), it must generally be 50 years or older. Under CEQA, historical resources can include pre-European contact (i.e., Native American) archaeological deposits, historic-period archaeological deposits, historic buildings, and historic districts. CEQA requires that agencies considering projects that are subject to discretionary action shall consider the potential impacts on cultural resources that may occur from project implementation.

Built Environment Resources

The Project area neither contains nor is adjacent to any built environment resource that qualifies as a historical resource for the purposes of CEQA. The Scotts Flat Dam and Spillway were evaluated for the CRHR and NRHP and recommended as not eligible under any criteria (Stantec 2017). No other buildings or structures are located within the Project area. Therefore, development on the Project site would not

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have the potential to cause a substantial adverse change to the significance of any built environment historical resource, as defined in Section 15064.5 of the CEQA Guidelines. The Project would not demolish a significant historical resource or alter its physical characteristics, nor would it change elements within the historic setting of such a resource. Therefore, the Project would have no impact on built environment historical resources.

Archaeological Resources

The Snow Mountain Ditch, P-29-001154, intersects the Project area underneath the existing Dam Road, adjacent to the Scotts Flat Dam. Because the resource has not been evaluated, it is assumed eligible for the CRHR and treated as eligible for the purposes of this Project. The Dam Road, where it crosses the Snow Mountain Ditch, would not be modified as part of the Proposed Project (**Section 2.4**) and thus the Project would not result in new impacts to the resource. However, as the resource is assumed eligible for the CRHR, the proximity of the resource to an active road during construction operations could result in a substantial adverse change in the resource, if it were subject to destruction or alteration such that the significance of the resource would be materially impaired (CEQA Guidelines Section 15064.5(b)(1)). Implementation of MM CUL-1: Establishment of Environmentally Sensitive Area (ESA) would ensure that potential impacts to the resource would be reduced to less-than-significant.

Despite the otherwise negative results of the records search, literature review, and field survey, it cannot entirely be ruled out that archaeological deposits could be encountered during project construction activities such as earth-moving and vegetation removal. Should archaeological deposits be encountered during project construction, a substantial adverse change in the significance of a historical resource could occur from its demolition, destruction, relocation, or alteration such that the significance of the resource would be materially impaired (CEQA Guidelines Section 15064.5(b)(1)). Implementation of MM CUL-2: Conduct Cultural Resources Awareness Training and MM CUL-3: Cultural Resources Inadvertent Discovery Plan and Protocol would ensure that impacts related to archaeological resources that qualify as historical resources would be reduced to less-than-significant.

b) *Would the Project cause a substantial adverse change in the significance of an archaeological resource as identified in Section 15064.5?*

Finding: Less-than-significant with Mitigation

According to the CEQA Guidelines, “When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource” (CEQA Guidelines Section 15064.5(c)(1)). Those archaeological sites that do not qualify as historical resources shall be assessed to determine if these qualify as “unique archaeological resources” (California PRC Section 21083.2). As discussed above, excavations related to Project construction could encounter archaeological deposits and result in an adverse change to a buried archaeological deposit that could qualify as an archaeological resource. Thus, potentially significant impacts related to buried unidentified archaeological deposits resources could result from earth-moving activities and vegetation removal.

Implementation of Mitigation Measure CUL-2 and CUL-3 would ensure that impacts related to archaeological deposits that qualify as archaeological resources would be reduced to less-than-significant.

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c) *Would the Project disturb any human remains, including those interred outside dedicated cemeteries?*

Finding: Less-than-significant with Mitigation

There are no known human burials or remains within the Proposed Project area. As discussed above, there is a low potential for the disturbance of historical and/or archaeological resources and/or human remains as a result of the Project. In the event that human remains are identified during Project activities, these remains would be required to be treated in accordance with Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the PRC, as appropriate. Section 7050.5 of the California Health and Safety Code states that, in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification. The NAHC will identify a Native American Most Likely Descendent to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. Compliance with the California Health and Safety Code and MM CUL-2: Conduct Cultural Resource Awareness Training would ensure that impacts to human remains would be reduced to less-than-significant.

3.5.4 Mitigation Measures

3.5.4.1 MM CUL-1: Establish an Environmentally Sensitive Area for Avoidance of P-29-001154

Prior to the beginning of Project construction, NID will work with a qualified archaeologist (i.e., an archaeologist that meets the Secretary of the Interior's Standards and Guidelines for Professional Qualifications in Archaeology) to designate an ESA of avoidance around P-29-001154, Snow Mountain Ditch, where it crosses underneath Dam Road. The ESA will be depicted on Project plans. Prior to construction, a qualified archaeologist will go to the resource and physically delineate the ESA. The delineation will use temporary barrier fencing, extending 30 ft on either side the intersection, on both sides of Dam Road. The fencing indicates an area where going off-road is strictly forbidden, and directed to avoid the ESA surrounding Snow Mountain Ditch by staying on the road.

3.5.4.1.1 MM CUL-1 Implementation

Responsible Party: NID

Timing: The ESA will be added to Project plans during development. Delineation shall take place prior to construction. Fencing will be replaced or maintained as needed during the Project and removed once Project work is complete.

Reporting: Photographs of ESA with fencing set up.

Standards of Success: The prevention of any impacts to P-29-001154, Snow Mountain Ditch.

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3.5.4.2 MM CUL-2: Conduct Cultural Resource Worker Awareness Training

Prior to the beginning of Project construction, a qualified archaeologist (i.e., an archaeologist that meets the Secretary of the Interior's Standards and Guidelines for Professional Qualifications in Archaeology) shall prepare and conduct pre-construction cultural resources awareness training. All construction personnel shall be required to attend the awareness training. The training will inform construction staff of the possibility of encountering precontact or historic-period cultural resources and/or human remains within the Proposed Project area and the protocol(s) to be followed if cultural resources or human remains are encountered during Project implementation. The training will also direct construction personnel to avoid the ESA established surrounding Snow Mountain Ditch (MM CUL-1) by staying on the road, and to avoid going off-road in unauthorized areas.

To facilitate compliance, all grading and construction plans shall include a note indicating all equipment operators and employees involved in any form of ground disturbance shall be trained to recognize potential cultural resources and advised of the possibility of encountering subsurface cultural resources during grading activities.

3.5.4.2.1 MM CUL-2 Implementation

Responsible Party: NID

Timing: The training shall take place prior to construction and all construction staff (i.e., staff present at the initiation of the Project and any new staff) must attend the training prior to participating in any Project-related activities. The qualified archaeologist presenting the awareness training shall provide NID with documentation of construction personnel attendance.

Reporting: Completion of a training document for use on-site and a signature list of all employees who received training.

Standards of Success: The identification of and prevention of any impacts to known or inadvertently discovered cultural resources during Project construction.

3.5.4.3 MM CUL-3: Cultural Resources Inadvertent Discovery Plan and Implementation, including Halt Work Provisions

An inadvertent discovery plan for cultural resources and human remains shall be prepared prior to and implemented during Project construction. The inadvertent discovery plan shall be prepared by a qualified archaeologist (i.e., an archaeologist that meets the Secretary of the Interiors Standards and Guidelines for Professional Qualifications in Archaeology). The inadvertent discovery plan shall address, at a minimum, protocols to be implemented in case of an inadvertent discovery of cultural resources and/or human remains, and/or the treatment of any inadvertently discovered cultural resources and/or human remains.

More specifically, all equipment operators shall be advised of the possibility of encountering cultural resources (MM CUL-2). If such resources are encountered or suspected, work shall be halted immediately within 100 ft of the suspected resource and NID shall be contacted. A professional archaeologist shall be retained by NID, consulted with, and provided access to any discoveries and develop appropriate management recommendations for archaeological resource treatment. If skeletal remains are encountered and appear to be human, Section 7050.5 of the California Health and Safety

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Coder requires that the Nevada County Coroner and the NAHC be contacted and, if Native American resources are involved, Native American organizations and individuals recognized by the County shall be notified and consulted about any plans for treatment.

3.5.4.3.1 MM CUL-3 Implementation

Responsible Party: NID

Timing: Plan completion prior to construction. Plan implementation prior to and during construction.

Reporting: As needed, if cultural resources are found.

Standards of Success: The identification of and prevention of any impacts to known or inadvertently discovered cultural resources and/or human remains during Project construction.

3.6 Energy

3.6.1 Setting

In January 2018, the Governor of California's Office of Planning and Research transmitted its proposal for comprehensive updates to the CEQA guidelines to the California Natural Resources Agency. This included an update to Section 15126.2(a) in response to the California Supreme Court's decision in California Building Industry Association v. Bay Area Air Quality Management District (2015) 62 Cal.4th 369. In late 2018, the Natural Resources Agency finalized the updates to the CEQA guidelines, including an addition of an Energy Section into the sample environmental checklist in Appendix G of the CEQA guidelines, in addition to the stand-alone Appendix F, to better integrate the energy analysis with the rest of CEQA. These updated Guidelines became effective on December 28, 2018.

Relevant state and local energy-related regulations and plans are summarized below.

3.6.1.1 Federal

Federal Energy Policy and Conservation Act

The Energy and Policy Conservation Act (EPCA) was enacted by Congress in 1975. This act established the first fuel economy standards for on-road motor vehicles in the U.S. Pursuant to the act, the National Highway Traffic Safety Administration (NHTSA) is responsible for establishing additional vehicle standards.

Federal Vehicle Standards

EPCA mandated that the NHTSA establish and implement a regulatory program for motor vehicle fuel economy (i.e., the CAFE program) to reduce national energy consumption. As codified in U.S. Code, Title 49, Chapter 329 and, as amended by the Energy Independence and Security Act of 2007 (EISA), EPCA sets forth specific requirements concerning the establishment of average fuel economy standards for passenger cars and light trucks. These are motor vehicles with a gross vehicle weight rating of less than 8,500 pounds and medium-duty passenger vehicles with a gross vehicle weight rating of less than 10,000 pounds. The Secretary of Transportation delegated responsibility for implementing the CAFE program to NHTSA.

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EISA, enacted by Congress in December 2007, amended the EPCA CAFE program requirements by providing the Department of Transportation with additional rulemaking authority and responsibilities. Consistent with its statutory authority in rulemaking to establish CAFE standards for model year 2017 and beyond passenger cars and light trucks, NHTSA developed two phases of standards. The first phase included final standards for model years 2017 through 2021. The second phase, covering model years 2022 through 2025, included standards that were not final, due to the statutory requirement that NHTSA set average fuel economy standards not more than five model years at a time. Rather, NHTSA wrote that those standards were augural, meaning that they represented its best estimate, based on the information available at that time, of what levels of stringency might be maximum feasible in those model years. In 2012, the agencies jointly adopted more stringent Phase 2 standards for light duty cars and trucks, which would cover model years 2017 through 2025. In August 2016, the agencies adopted more stringent Phase 2 standards for medium and heavy-duty vehicles, which would cover model years 2018 through 2027 for certain trailers and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks.

On March 31, 2020, NHTSA and the U S EPA released a new rule, the final Safer Affordable Fuel Efficient (SAFE) Vehicles Rule, setting CAFE and carbon dioxide (CO₂) emissions standards for model years 2021 through 2026 passenger cars and light trucks. The rule rolled back the 2012 standards for model years 2021 through 2026 for passenger cars and light trucks that required an average fleetwide fuel economy equivalent of 54.5 miles per gallon in model year 2025 with a five percent annual increase to an average fuel economy of about 40 miles per gallon in model year 2025 with annual increases of 1.5 percent starting in 2021. As a part of issuing the new SAFE rule, NHTSA issued a Final Environmental Impact Statement which found that the relaxed standards would result in increased petroleum consumption which, in turn, would result in increases to greenhouse gases and criteria pollutants known to contribute to adverse health impacts (NHTSA 2020). These estimated increases from the roll back of the 2012 standards are expected to result in more than a billion metric tons of additional climate pollution through 2040, as determined by calculating the difference from the reduction of two billion metric tons the 2012 rule was expected to accomplish compared to the standards of the 2020 rule (NHTSA 2020).

3.6.1.2 Local Regulations and Plans

Nevada County Energy Action Plan

On February 12, 2019, the Nevada County Board of Supervisors approved the Energy Action Plan (EAP) as the County's unincorporated area's roadmap for expanding energy efficiency, water efficiency, and renewable energy, and the cost-savings that accompany these efforts (Nevada County 2019). Nevada County EAP was developed to provide a broad view of energy use in the County, set energy and water energy saving goals, recommend actions that result in short and long-term energy savings, and educate the community on existing resources designed to save utility customers money, energy, and water. The goals of the EAP are as follows:

- Goal 1: Improve Energy Efficiency in Buildings, Facilities, and County Operations
- Goal 2: Expand Utilization of Renewable Energy and Resilience Measures
- Goal 3: Encourage Efficient and Safe Transportation and Use of Water Resources

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3.6.2 Impact Analysis

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

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

Finding: Less-than-significant

Construction

Construction of the Proposed Project would require slight increases in energy use relative to existing conditions. Fuel consumption would increase slightly above the baseline due to the operation of gas and diesel-powered equipment required for construction (See **Section 2.5** for a complete list of construction equipment). Workers would likely commute to the site daily during active construction periods from the nearby towns of Nevada City (approximately four miles away) and Grass Valley (approximately nine miles away).

This minor increase in energy use during construction would not be considered wasteful, inefficient, or unnecessary consumption of energy. There are no unusual Project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in other parts of the state. Therefore, it is expected that construction fuel consumption associated with the Proposed Project would not be any more inefficient, wasteful, or unnecessary than at other construction sites in the region. Therefore, construction impacts would be less-than-significant.

Operation

Following completion of the Proposed Project, vehicle use would return to existing levels; and no changes would occur from current (i.e. baseline) use. Therefore, there would be no operational impacts.

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

Finding: No impact

Construction and Operation

State guidelines on renewable energy or energy efficiency do not set any specific thresholds for determining the energy efficiency of construction projects. The Nevada County EAP does not set any specific thresholds for determining the energy efficiency of construction projects (Nevada County 2019).

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The Project would comply with federal, state, and local regulations aimed at reducing energy consumption. Therefore, there would be no impact.

3.6.3 Mitigation Measures

No mitigation is required.

3.7 Geology and Soils

3.7.1 Setting

3.7.1.1 General Geologic Setting

Nevada County is part of the Sierra Nevada Range, a geologic block approximately 400 miles long and 80 miles wide which extends in a north-south band along the eastern portion of California. The terrain of Nevada County is distinctly characterized by two features of the Sierra Nevada Range. The western third of the County is comprised of rolling foothills which form a transition between the low-lying Sacramento Valley and the mountains to the east. The eastern two-thirds of the County is comprised of the steep terrain and exposed granite of the Sierra Nevada Range itself.

The geologic substructure of the County can be divided into three very broad groups: Western Foothills, Central Portion, and Eastern Half. The Proposed Project is located in the Central Portion: The area extending northeast of the Grass Valley/Nevada City area to the upper mountainous area near Bowman Lake Road that is generally comprised of sedimentary and metasedimentary (Paleozoic Marine Metasedimentary) and volcanic (Cenozoic Volcanic) formations (Nevada County 1995).

The geology underlying the Scotts Flat Spillway area is a complex assemblage of metamorphosed, mostly highly weathered, highly fractured, and highly sheared and faulted igneous and sedimentary rock types. The spillway area is immediately underlain by Jurassic age (approximately 144 to 208 million years old) meta-volcanic rock of the Lake Combie Complex. The rock of the Lake Combie Complex is composed of discontinuous, interbedded, weakly metamorphosed volcanic flows, and pyroclastic/flow breccia deposits. These volcanic deposits typically vary in hardness from decomposed and very soft (can be readily indented, grooved, or gouged with fingernail) to slightly weathered and hard (can be scratched with difficulty and breaks with heavy hammer blows), and are usually moderately to intensely fractured near the surface. Limestone fragments and intact limestone from the Clipper Gap Formation were encountered in recent borings in borings (HDR 2026).

3.7.1.2 Earthquake Potential

Faults are breaks and fractures in the earth's crust accompanied by a displacement of one side relative to the other. An earthquake occurs when there is movement along a fault. The greater the number of faults within an area, the greater the risk of seismic activity. Pre-Quaternary faults (older than two million years) can be found in the County's western half, running generally in a north-south direction. Quaternary (younger than two million years) and historic (less than 200 years) can be found in the eastern portion of the County near Truckee, approximately 50 miles west of the Proposed Project (Nevada County 1995).

The western slope of the Sierra Nevada mountains is a seismically active region. The major geologic feature in the vicinity of the Proposed Project is the Foothill Fault System. The faults associated with the

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Foothill Sault System are classified as Pre-Quaternary faults (i.e., older than 1.6 million years) and are defined as faults without recognized Quaternary displacement and showing no displacement during Quaternary time, but they are not necessarily inactive (California Geology 1978). Scotts Flat Dam is approximately 7.5 miles west of the Giant Gap fault, an ancient Pre-Quaternary fault feature. According to the California Geologic Survey, the spillway chute is not located in a designated Alquist-Priolo Earthquake Fault Zone, which represents the highest risk for seismic activity (CSG 2018).

3.7.1.3 Soil Characteristics

According to the Natural Resources Conservation Service (NRCS) Web Soil Survey, there are two distinct soil types in the area. The soils at the top of the spillway and area below Scotts Flat Dam in the vicinity of the Scotts Flat Powerhouse discharge channel and Deer Creek, and placer diggings, which are mine tailings from mining activities during the 19th century and tend to be hydric soils (NCRS 2023). The lower portion of the spillway and to the south, as well as immediately south of the dam is made up of Cohasset cobbly loam (5 to 30 percent slopes and 15 to 50 percent slopes). According to the NRCS, Cohasset cobbly loam (5 to 30 percent slopes) is made up of cobbly andesitic colluvium derived from conglomerate and Cohasset cobbly loam (15 to percent slopes) is made up of residuum and/or colluvium derived from volcanic rock. In addition, the rock underlying the spillway is intensely weathered to decomposed with variable percentages of clay and highly erodible (HDR 2026).

3.7.1.4 Liquefaction Potential

Soil liquefaction occurs when ground shaking from an earthquake causes a sediment layer saturated with groundwater to lose strength and take on the characteristics of a fluid, thus becoming similar to quicksand. Factors determining the liquefaction potential are soil type, the level and duration of seismic ground motions, the type and consistency of soils, and the depth to groundwater. Loose sands and peat deposits, along with recent Holocene age deposits, are more susceptible to liquefaction, while older deposits of clayey silts, silty clays, and clays deposited in freshwater environments are generally stable under the influence of seismic ground shaking. Given the lack of recent Holocene age deposits (the spillway area is immediately underlain by Jurassic age), the Project area is not located within a high-risk area for seismic activity (CSG 2018) and contains soils with 40 to 85 percent fines content (indicating sands, silts, clays, and silty and clayey sands (HDR 2026), the Project area is considered to have a low liquefaction potential.

3.7.1.5 Landslide Potential

A landslide can be defined as an event in which surface masses of slope-forming earth move outward and downward from their underlying and stable floors in response to the force of gravity. This occurs whenever “shear resistance” of the mass is exceeded by the “shear stress.” Because much of Nevada County is steeply sloping, the threat of landslides is ever present. However, due to the fact that most of the soils within the County are underlain with dense bedrock and lack the depth and cohesionless structure associated with ground failure, most secondary hazards should be considered moderate at worst. All areas with igneous and metamorphic bedrock can be assumed as “low risk,” and since most of Nevada County is underlain with similar formations, it is safe to assume a low risk rating to most of the County. The low risk rating would apply to ground settlement and liquefaction hazards, as well (Nevada County 1995).

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3.7.1.6 Paleontological Resources

Paleontological resources are fossilized evidence of organisms preserved in the geologic (rock) record. Fossils are considered nonrenewable resources that are protected by federal, state, and local environmental laws and regulations.

3.7.2 Impact Analysis

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

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

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other

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substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

ii) Strong seismic ground shaking.

Finding: Less-than-significant

Construction and Operation

The Proposed Project area is not located in a fault zone delineated on the California Geological Survey, Alquist-Priolo Earthquake Fault Zoning Map (Department of Conservation 2022). Additionally, although there are faults near the Proposed Project area, these faults are classified as Pre-Quaternary, meaning displacement occurred greater than two million years ago, and no recent activity has occurred along these faults. According to the Nevada County General Plan Master Environmental Inventory, no recorded epicenters have been located in central county, and seismicity potential is considered moderate (Nevada County 1995). There are no residences near the Proposed Project site. The Proposed Project would not include construction of structures for human occupancy. Therefore, given the age of the faults in the area and the general lack of human occupancy structures, the Proposed Project would not subject people or structures to adverse effects due to rupture of a known faults or strong seismic shaking. Therefore, impacts are considered less-than-significant.

iii) Seismic-related ground failure, including liquefaction.

Finding: Less-than-significant

As discussed in the seismic ground shaking discussion above as well as the environmental setting, the Proposed Project area is anticipated to experience moderate to severe seismic shaking over the Proposed Project's lifetime due to the older age of the nearby faults (HDR 2026). The potential for ground failure resulting from events such as liquefaction is possible when the ground shaking potential is combined with poorly drained soils; however, the Project area is generally underlain by well-drained, loam soils (CSG 2018; NRCS 2023; HDR 2026). Therefore, the potential to expose people or structures to substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction, is considered less-than-significant.

iv) Landslides

Finding: Less-than-significant

Soils underlying the Project area are mostly characterized as well-drained, loam and volcanic soils that are generally not susceptible to landslides. Additionally, no structures for residential purposes or public gathering places would be included as part of the Proposed Project. Additionally, the Proposed Project is not located in an area that is prone to landslides (Nevada County 1995). Due to the characteristics of the underlying geology and soils, and that no structures for habitation or public gatherings are proposed for construction, impacts resulting from the Proposed Project would be less-than-significant.

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

Finding: Less-than-significant

The construction activities associated with the Proposed Project have the potential to remove topsoil and increase erosion in the area. Specifically, the upper spillway chute excavation would start at 100 ft wide

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and then would transition down to the lower chute which would be 50 ft wide. During these excavation activities, the excavated soil would be exposed to wind and water erosion, which could result in loss of topsoil into local drainages if not handled appropriately. However, because the Proposed Project would disturb more than one acre of land, a SWPPP would be required for the Project and would be approved by the Central Valley RWQCB prior to construction. The SWPPP would be designed to protect water quality pursuant to the requirements of the NPDES stormwater permit for construction activities and would include BMPs for restoring and stabilizing the Project area during and after construction to minimize and control erosion. The implementation of the SWPPP, along with the associated BMPs, would minimize any substantial soil erosion or loss of topsoil, reducing impacts to a less-than-significant level.

- c) *Would the Project 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?***

Finding: Less-than-significant

As discussed under question “a) iii)” above, the Proposed Project would be constructed on stable slopes and soils that are well-drained (HRD 2026; NRCS 2023). The Proposed Project would be constructed to County and California Building Code structural design standards and would not include any features that would undermine the stability of the area. Therefore, the Project would not be located on unstable soil or geologic units and would not cause the Project alignment to become unstable, resulting in a less-than-significant impact.

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

Finding: No Impact

The Proposed Project does not involve the construction of structures for human habitation or for public gathering places. Further, the Proposed Project would comply with all federal, state, and local requirements related to stability of underlying soils and foundations, and the final design plans would be required to be stamped by a licensed structural engineer, confirming that these standards are met. Therefore, no impact relative to expansive soils would occur.

- e) *Would the Project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?***

Finding: No Impact

Development of the Proposed Project would not involve the use of septic tanks or alternative wastewater disposal systems. As such, no impact to wastewater disposal systems would result from the Proposed Project.

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

Finding: Less-than-significant With Mitigation

There are no unique geologic features along the Proposed Project alignment. In addition, significant unique paleontological resources or sites are not likely or expected to occur within the Proposed Project

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area. With implementation of MM PALEO-1, any potential Project impacts to paleontological resources would be reduced to a less-than-significant level.

3.7.3 Mitigation Measures

3.7.3.1 MM PALEO-1: Proper Handling of Inadvertent Discovery of Paleontological Resources

If a paleontological resource (i.e., a fossil) is found during Project construction, construction shall be halted immediately within 100 ft if the resource and NID shall be immediately notified. A qualified paleontologist shall be retained to evaluate the find and recommend appropriate treatment of the inadvertently discovered paleontological resource. The appropriate treatment of an inadvertently discovered paleontological resource shall be implemented to ensure that impacts to a resource are avoided.

3.7.3.1.1 MM PALEO-1 Implementation

Responsible Party: NID would ensure the appropriate treatment for any discovery of paleontological resources during construction.

Timing: During all ground-disturbing activities.

Monitoring and Reporting Program: If any find is determined to be significant, representatives of NID and a qualified paleontologist would meet to determine the appropriate avoidance measures or other appropriate mitigation, and a report shall be kept on file at NID.

Standards of Success: The proper recording, evaluation, and treatment of any newly identified paleontological resources.

3.8 Greenhouse Gas Emissions

3.8.1 Setting

Many chemical compounds found in the earth's atmosphere act as greenhouse gases (GHG), which allow sunlight to enter the atmosphere freely. When sunlight strikes the earth's surface, some of it is reflected back toward space as infrared radiation (heat). GHGs absorb this infrared radiation and trap the heat in the atmosphere. Over time, the amount of energy sent from the sun to the earth's surface should be about the same as the amount of energy radiated back into space, leaving the temperature of the earth's surface roughly constant. Many gases exhibit these "greenhouse" properties. Some of them occur in nature (water vapor, carbon dioxide, methane, and nitrous oxide), while others are exclusively human-made (like gases used for aerosols).

The principal climate change gases resulting from human activity that enter and accumulate in the atmosphere are listed below:

- Carbon Dioxide: CO₂ enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and chemical reactions (e.g., the manufacture of cement). CO₂ is also removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.

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- **Methane (CH₄):** CH₄ is emitted during the production and transport of coal, natural gas, and oil. CH₄ emissions also result from livestock and agricultural practices and the decay of organic waste in municipal solid waste landfills.
- **Nitrous Oxide (N₂O):** N₂O is emitted during agricultural and industrial activities as well as during combustion of fossil fuels and solid waste.
- **Fluorinated Gases:** Hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are synthetic, powerful climate change gases that are emitted from a variety of industrial processes. Fluorinated gases are often used as substitutes for ozone-depleting substances (i.e., chlorofluorocarbons, hydrochlorofluorocarbons, and halons). These gases are typically emitted in smaller quantities, but because they are potent climate change gases, they are sometimes referred to as high Global Warming Potential gases.
- **Sulfur Hexafluoride (SF₆):** SF₆ is an inorganic compound that is colorless, odorless, nontoxic, and generally nonflammable. SF₆ is primarily used as an electrical insulator in high voltage equipment.
- **Black Carbon:** Black carbon is the strongest light-absorbing component of PM emitted from burning fuels such as coal, diesel, and biomass.

3.8.1.1 Sources of Greenhouse Gas Emissions

On a global scale, GHG emissions are predominantly associated with activities related to energy production; changes in land use such as deforestation and land clearing; industrial sources; agricultural activities; transportation; waste and wastewater generation; and commercial and residential land uses. World-wide, energy production, including the burning of coal, natural gas, and oil for electricity and heat, is the largest single source of global GHG emissions.

In 2021, GHG emissions within California totaled 381.3 million metric tons of carbon dioxide equivalent (CO₂e). Similar to national emissions, in California, the transportation sector is the largest contributor. Transportation emissions account for approximately 38 percent of the total statewide GHG emissions. The majority of transportation emissions are derived from passenger vehicles and heavy-duty trucks. Emissions associated with industrial uses are the second largest contributor, totaling roughly 19 percent. Industrial emissions are driven by fuel combustion from sources that include refineries, oil and gas extraction, cement plants, and the portion of cogeneration emissions attribution to thermal energy output. Electricity generation (in-state and imports) totaled roughly 16 percent. Emissions from the electricity generation sector have declined over the years due to the increase in renewable generation that continues to replace fossil power (CARB 2023).

3.8.1.2 Potential Climate Change Effects

There are uncertainties as to exactly what the climate changes will be in various local areas of the earth. There are also uncertainties associated with the magnitude and timing of other consequences of a warmer planet: sea level rise, spread of certain diseases out of their usual geographic range, the effect on agricultural production, water supply, sustainability of ecosystems, increased strength and frequency of

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storms, extreme heat events, increased air pollution episodes, and the consequence of these effects on the economy.

3.8.2 Impact Analysis

VIII. GREENHOUSE GAS EMISSIONS Would the Project:	Potentially Significant Impact	Less-than-significant with Mitigation Incorporation	Less-than-significant Impact	No Impact
a) Generate GHG, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?		X		

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

Finding: Less-than-significant

The Proposed Project could contribute to climate change impacts through its contribution of GHGs. The Proposed Project would generate a variety of GHGs during construction, including several defined by Assembly Bill (AB) 32, such as CO₂, CH₄, and N₂O from the exhaust of equipment and the exhaust of construction hauling trips and worker commuter trips.

Construction emissions were computed for the Project using CalEEMod (Appendix A). The primary sources of Proposed Project-related GHG emissions are anticipated to be combustion of fossil fuels from the operation of internal combustion engines used during Project construction (e.g., portable equipment, off-road equipment, and vehicles). As shown in **Table 3.8-1**, the Project construction would generate a total of 593 metric tons of CO₂e over four years. The operation of the Project would be similar to existing conditions and would not generate long-term operational GHG emissions. NSAQMD does not have any quantitative thresholds. However, since construction emissions are short-term and would cease upon completion of the Project and since operation would not result in additional emissions, the impact would be less-than-significant.

Table 3.8-1 CalEEMod-Predicted CO₂e Emissions Estimates

Construction Year (Phase)	Emissions (MT CO ₂ e)
2027–8 (Phase 1 and 2)	229
2029 (Phase 3)	183
2030 (Phase 4)	181
Construction Total	593

Source: CAPCOA 2024

Note: Construction was modeled to occur over three years to account for the possible overlap between Phase 1 and Phase 2 of construction.

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b) *Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

Finding: Less-than-significant with Mitigation

The Proposed Project would have a significant impact if it were to conflict with applicable GHG reduction plans, policies, or regulations. Nevada County has not established a local climate action plan or climate change strategy to which the Project would be subject. CARB has established the 2022 Scoping Plan to create a blueprint for the state to reach net neutrality by 2045. The Project would emit short-term construction emissions but would implement MM AQ-1 that would reduce emissions from the burning of diesel fuel. These emissions would cease upon completion of construction. Project operation would be similar to existing conditions and would not generate long-term operational GHG emissions. Therefore, the Project would not conflict with the long-term goals or measures within the 2022 Scoping Plan with mitigation incorporated. Therefore, the impact is less-than-significant.

3.8.3 Mitigation Measures

3.8.3.1.1 MM AQ-1: NSAQMD Required Mitigation

See **Section 3.3, Air Quality**.

3.9 Hazards and Hazardous Materials

3.9.1 Setting

For purposes of this section, the term “hazardous materials” refers to both hazardous substances and hazardous wastes. A “hazardous material” is defined in 49 CFR Section 171.8 as “a substance or material that ... is capable of posing an unreasonable risk to health, safety, and property when transported in commerce.”

A search of potential hazardous materials databases was conducted for the Proposed Project area. There are no active RWQCB GeoTracker cleanup sites within two miles of the Proposed Project alignment (RWQCB 2024). There are no active Department of Toxic Substances Control (DTSC) EnviroStor cleanup sites located within two miles of the Proposed Project (DTSC 2024).

3.9.1.1.1 Schools and Airports

The closest schools to the Proposed Project are located in Nevada City, which are over four miles from the Project area. The closest airport is the Nevada County Airport, which is located approximately four miles southwest of the Proposed Project area.

3.9.1.1.2 Wildfire

The Proposed Project area and the surrounding area are designated as a ‘very high’ Fire Hazard Severity Zone (FHSZ) by California Department of Forestry and Fire Protection (CAL FIRE) (CAL FIRE 2024).

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3.9.2 Impact Analysis

IX. HAZARDS AND HAZARDOUS MATERIALS Would the Project:	Potentially Significant Impact	Less-than-significant with Mitigation Incorporation	Less-than-significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		X		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) 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?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		X		
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?		X		

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

Finding: Less-than-significant

Construction

Temporary construction activities associated with the Proposed Project would involve the transport and use of limited quantities of hazardous substances, including gasoline, diesel fuel, hydraulic fluid, solvents, and oils. These chemicals would be brought to the Proposed Project area as well as transported along

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the roadways. Federal and state laws regulate the handling, storage, and transport of these and other hazardous materials, as well as the mechanisms to respond and clean up any spills along local and regional roadways. Chemicals present on-site or used for the Proposed Project would be handled in accordance with applicable federal, state, and local regulations (including those laws mentioned in the regulatory setting above) for hazardous substances. Once constructed, the Proposed Project would not include any operational use of hazardous materials. Therefore, the potential for impacts related to hazardous materials transport, use, or disposal would be considered less-than-significant.

Operations

Once operational, the Proposed Project would not result in changes that would increase potential impacts related to hazardous materials. Therefore, there would be no operational impacts.

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

Finding: Less-than-significant with Mitigation

Construction

Temporary construction activities associated with the Proposed Project would involve the transport and use of limited quantities of hazardous materials, including gasoline, diesel fuel, hydraulic fluid, solvents, and oils. Chemicals present on-site during Project construction would be handled by the contractor in accordance with applicable federal, state, and local regulations for hazardous substances, and any spills would be immediately cleaned up and disposed of in the appropriate manner. Furthermore, to ensure hazardous materials are not released into the environment during construction, MM HAZ-1 would be implemented, which would require the development and implementation of a Spill Prevention Control and Countermeasure Plan (SPCCP), thus reducing the potential for a spill to create a significant hazard to the public or environment. The SPCCP would require having materials on-site to treat and clean up any potential spill quickly and efficiently. Therefore, with the incorporation of MM HAZ-1, impacts would be reduced to a less-than-significant level.

Operations

Once operational, the Proposed Project would not result in changes that would increase potential impacts related to hazardous materials. Therefore, there would be no operational impacts.

- c) *Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

Finding: No Impact

Construction and Operation

The Proposed Project is not expected to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. The closest schools to the Proposed Project area are located in Nevada City, which is located four miles west of the Proposed Project. Additionally, the Proposed Project does not involve operational activities that

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would result in hazardous emissions. Operations would be consistent with existing conditions with no potential to emit hazardous materials or emissions. Therefore, no impacts would occur.

- d) *Would the Project 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?***

Finding: No Impact

Construction and Operation

A review of the DTSC and State Water Resources Control Board (SWRCB) hazardous materials database did not identify the Project area directly within a known hazardous materials site (DTSC 2024; RWQCB 2024). Therefore, there would be no potential to create a significant hazard to the public or the environment. There are no other known contamination sites within the Proposed Project area or surrounding area that would be a hazard to the public. Therefore, there would be no impact.

- e) *For a Project located within an airport land use plan or, where such a plan has not been adopted, within 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?***

Finding: No Impact

Construction and Operation

The Proposed Project is not located within an airport land use plan, or within two miles of a public or private airport. The nearest airport to the Proposed Project area is the Nevada County Airport, which is located approximately five miles southwest of the Proposed Project area. Therefore, there is no potential for the Proposed Project to result in a safety hazard for people residing or working in the Project area and no impact would occur.

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

Finding: Less-than-significant with Mitigation

Construction

The activities associated with the Proposed Project would not result in any permanent changes that would impair an adopted emergency response plan or emergency evacuation plan, as they would not create a long-term increase in traffic, block any roadways, or increase any urban uses. Although construction of the Proposed Project would require closure of Scotts Flat Dam Campground to the public, emergency response or emergency evacuation access into the Proposed Project area would not be limited. However, if temporary road closures and/or one-way traffic control is required for Scotts Flat Road, NID would prepare a traffic control plan. MM TRANS-1 would require the development of a Construction Traffic Control Plan in conformance with County requirements and professional engineering standards prior to construction (see **Section 3.16, Transportation and Traffic**, for additional information). This Traffic Control Plan would include requirements for maintaining emergency services access. Therefore, with implementation of MM TRANS-1, the Proposed Project would result in a less-than-significant impact.

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Operation

Once operational, the Proposed Project would not result in changes beyond existing operations, and therefore there would be no change related to emergency response or evacuation plans. There would be no operational impact.

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

Finding: Less-than-significant with Mitigation

Construction

The Proposed Project would not result in construction of new residential occupancy structures, nor would it introduce new residents into the 'very high' FHSZ, as designated by CAL FIRE. Construction of the Proposed Project would involve the use of construction equipment that could cause the unintentional release of sparks or heat into nearby brush, grassland, or other flammable material or woody vegetation. As such, MM HAZ-2: Fire Suppression and Control would include coordination with the local fire chief, Nevada County, and CAL FIRE, and would require the use of fire suppression equipment and procedures during construction activities to minimize the potential for starting a wildland fire in the area. Therefore, with the implementation of MM HAZ-2, construction of the Proposed Project would have a less-than-significant impact related to wildland fires.

Operations

Once operational, the Proposed Project would not result in changes that would increase potential impacts related to risk of injury or death involving wildland fires. Therefore, there would be no operational impacts.

3.9.3 Mitigation Measures

3.9.3.1 MM HAZ-1: Develop and Use Spill Prevention Control and Countermeasure Plan

NID, or its contractor, shall develop and implement an SPCCP in accordance with federal and state requirements to minimize the potential for, and effects from, spills of hazardous, toxic, or petroleum substances during construction activities for all contractors. NID shall include the following measures:

- Hazardous materials, chemicals, fuels, and oils shall be stored at least 100 ft from receiving waters and liquid hazardous materials shall be covered and stored within secondary containment where containment is 110 percent of liquid material volume.
- Materials shall be stored in appropriate containers and contents labeled.
- Material volume shall be restricted to the volume that can be addressed by available spill kits and supplies.
- Used containers shall be disposed of at an appropriate landfill or other legal disposal or recycling facility.

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- Bulk storage tanks shall have secondary containment systems. Secondary containment shall be at least 110 percent of storage tank capacity or more if the area is uncovered to account for storm events.
- Spill cleanup shall occur immediately, and notification shall be given to CDFW, USFWS, Nevada County, and the RWQCB.
- Workers shall be trained to properly handle hazardous materials, cleanup spills, and report spills. Construction workers shall be trained to identify indicators of contaminated soil, such as soil discoloration, odors, differences in soil properties, and buried debris. Construction workers shall be trained to be aware of proper handling techniques and appropriate responses and actions to be taken if hazardous materials are accidentally released, with special emphasis on those hazardous materials with the greatest potential to occur along the Project alignment.
- Soils contaminated with fuels or chemicals shall be disposed of in a suitable location to prevent discharge to surface waters and in accordance with the rules and regulations of Caltrans, the EPA.
- Excess or unused quantities of hazardous materials shall be removed upon Project completion. Although hazardous waste generation is not anticipated, any such waste produced during construction shall be properly containerized, labeled, and transported to an approved hazardous waste disposal facility.
- All nonhazardous waste materials including construction refuse, garbage, and sanitary waste, shall be disposed of by removal from the work area to an approved disposal facility. All nonhazardous waste containers shall be covered when not in use and/or at the end of each shift or before a rain or other precipitation event.

A fueling plan shall be prepared separately or as a part of the SPCCP. The fueling plan shall include the following measures:

- Vehicles shall be monitored for fluid leaks and shall be maintained regularly to reduce the chance of leakage. If any leaks are detected, the vehicle shall be taken to a special paved area designated for vehicle repair and equipped with management controls for leaked materials; or, if it cannot be repaired, removed from service and site to obtain a replacement.
- Vehicles refueling shall only occur on flat level ground where there is little chance of a spilled substance reaching a stream or waterway over an impermeable surface. A spill kit shall be available as appropriate for the activity.
- Refueling and vehicle maintenance shall be performed at least 100 ft from receiving waters.
- All fueling materials shall be properly labeled.
- Oil, antifreeze, solvents, and other materials related to equipment maintenance shall be disposed of or recycled appropriately off-site. If these materials have to be stored before disposal/recycling, they shall be stored in covered areas in containers with 110 percent capacity with berms and

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lined with impermeable material to contain any spills. The impermeable material should be maintained free of holes, etc. that would permit leaks to contact the ground surface or otherwise leave the containment area.

NID shall review and approve the SPCCP before onset of construction activities. During construction, NID shall routinely inspect the construction area to verify that the measures specified in the SPCCP are properly implemented and maintained and shall notify its contractors immediately if there is a noncompliance issue and shall require compliance.

The federal reportable spill quantity for petroleum products, as defined in 40 CFR Part 110, is any oil spill that: 1) violates applicable water quality standards; 2) causes a film or sheen upon or discoloration of the water surface or adjoining shoreline; or 3) causes a sludge or emulsion to be deposited beneath the surface of the water or adjoining shorelines.

If a spill is reportable, NID or the contractor would take action to contact the appropriate safety and cleanup crews to ensure the SPCCP is followed. A written description of reportable releases must be submitted to the RWQCB. The submittal must include a description of the release, including the type of material and an estimate of the amount spilled, the date of the release, an explanation of why the spill occurred, and a description of the steps taken to prevent and control future releases. The releases would be documented on a spill report form.

3.9.3.1.1 MM HAZ-1 Implementation

Responsible Party: NID or its contractor shall develop and implement a SPCCP to minimize the potential for, and effects from, spills of hazardous, toxic, or petroleum substances during construction activities for all contractors.

Timing: Prior to and during all phases of construction.

Monitoring and Reporting: Evaluation of the SPCCP shall be conducted by NID. Reports on the SPCCP implementation shall be documented by NID and submitted to Nevada County and the RWQCB to be kept on file.

Standard of Success: Minimize the potential for, and effects from, spills of hazardous, toxic, or petroleum substances during construction activities in accordance with the requirements of this measure as well as federal and state laws.

3.9.3.2 MM HAZ-2: Fire Suppression and Control

NID shall require the selected construction contractor to coordinate with the local fire chief, Nevada County, and CAL FIRE to ensure fire control measures are in place to reduce the risk of fires during construction of the Proposed Project. The fire prevention and control measures shall include requirements for on-site extinguishers; roles and responsibilities of NID and its contractor, including what to do in the event of a fire; fire suppression equipment and critical fire prevention and suppression items; and any other items or awareness measures recommended by the local fire chief, Nevada County, and/or CAL FIRE.

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3.9.3.2.1 MM HAZ-2 Implementation

Responsible Party: NID's contractor shall coordinate with the local fire chief, Nevada County, and CAL FIRE to ensure fire control measures including, but not limited to, fire suppression and management measures are in place and on-site and readily accessible during construction in the event of an unintended fire.

Timing: Coordination with the local fire chief, Nevada County, and CAL FIRE shall take place prior to construction and implementation of fire suppression and control measures shall be implemented during all phases of construction.

Monitoring and Reporting: Evaluation of the fire suppression and control measures shall be conducted by NID. The NID inspector or other NID personnel shall verify that coordination with the fire chief, Nevada County, and CAL FIRE took place and that proper responsibilities and fire suppression, and control equipment/items are available on-site during construction. Documentation shall be submitted by NID to Nevada County to be kept on file at the Nevada County office.

Standard of Success: Preparedness for and minimization of the start and spread of wildfire during construction activities for all contractors.

3.9.3.2.2 MM TRANS-1: Prepare and Implement a Construction Traffic Control Plan

See Section 3.17, Transportation and Traffic.

3.10 Hydrology and Water Quality

3.10.1 Setting

The Project area is located within the northern portion of the Sacramento Hydrologic Basin Planning Area, as defined by the CVRWQCB (CVRWQCB 1986). Existing water quality objectives for the physical, chemical, and bacterial constituents are established in the "Sacramento River Basin and San Joaquin River Basin Water Quality Control Plan" (Basin Plan) (CVRWQCB 2019).

The Proposed Project is largely located within a Federal Emergency Management Agency (FEMA) designated "special flood hazard areas subject to inundation by the one percent annual chance of flood" (FEMA 2010).

The spillway within the Project area is designed to capture large flood flows that would pass through the spillway chute and lower plunge pool. The purpose of this Proposed Project is to improve the Scotts Flat Spillway chute and plunge pool to accommodate the PMF and reduce erosion in the area.

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3.10.2 Impact Analysis

X. HYDROLOGY AND WATER QUALITY Would the Project:	Potentially Significant Impact	Less-than- significant with Mitigation Incorporation	Less-than- significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?		X		
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
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;		X		
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;				X
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or				X
iv) impede or redirect flood flows?				X
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
e) Conflict with or obstruct implementation of a Water Quality Control Plan or sustainable groundwater management plan?		X		

a) *Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?*

Finding: Less-than-significant with Mitigation

Construction

Construction activities have the potential to create soil erosion and possibly increase sedimentation or degrade water quality from placement of unclean fill material. Construction activities could also increase the potential for accidental release of pollutants that could affect not only surface waters, but the

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beneficial uses associated with them. Such pollutants include oil and gas from machinery and chemicals associated with construction (e.g., lubricants, fuel, and waste material). Many construction-related pollutants have the potential to degrade water quality by increasing constituent levels in surface waters that could lead to an exceedance of water quality standards. Improper storage of hazardous materials during Proposed Project construction could pose a risk of release and result in the degradation of water quality.

However, MM HAZ-1, which requires the development and use of a SPCCP, would be implemented to reduce the potential of a hazardous material release resulting from Project construction. Additionally, prior to the issuance of any construction-related permits, the applicant shall prepare and submit a Notice of Intent to the SWRCB and prepare a SWPPP in compliance with the NPDES General Construction Permit. The SWPPP shall include a detailed, site-specific listing of the potential sources of stormwater pollution; pollution prevention measures (erosion and sediment control measures and measures to control non-stormwater discharges and hazardous spills); description of the type and location of erosion and sediment control BMPs to be implemented during Project construction; and a BMP monitoring and maintenance schedule to determine the amount of pollutants leaving the Project alignment.

Additionally, inadvertent erosion that results in increased sediment or discharge of other materials into waterbodies because of Proposed Project construction activities could result in adverse impacts to water quality. MM HYDRO-1, which includes erosion and water quality control measures, would be implemented during the construction phase to avoid and minimize potential adverse impacts to water quality from erosion and sedimentation. These MMs would ensure that water quality standards are achieved, thus reducing any impacts to a less-than-significant level.

Operation

Once operational, the Proposed Project would not result in changes beyond existing operations, and therefore there would be no change related to water quality violations. There would be no operational impact.

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

Finding: Less-than-significant

Construction and Operation

Most construction activities are not expected to encounter the local groundwater table because of the surficial nature of the construction activities and the time of year when these activities would occur.

Construction of the spillway chute and flip bucket may encounter the local groundwater table because of the relatively shallow local groundwater in the vicinity, and dewatering activities may be necessary within the lower plunge pool area. Excavation depth of the lower plunge pool would be up to 20 ft, and excavation depth of the spillway chute would be approximately 100 to 180 ft wide and approximately 10 ft deep. However, dewatering activities would be temporary, there are no mapped groundwater basins in the vicinity (California Department of Water Resources 2003), nor are there local users who rely on the local groundwater. Furthermore, the Proposed Project activities in the dewatering areas would not involve groundwater extraction or induce significant lowering of the local groundwater table. These activities

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would therefore not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Proposed Project may impede sustainable groundwater management of the basin. Therefore, impacts are considered less-than-significant.

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

i) result in substantial erosion or siltation on- or off-site?

Finding: Less-than-significant with Mitigation

Construction

Construction activities have the potential to create soil erosion and could temporarily alter drainage patterns during trenching activities. However, as discussed in “(a)” above, MM HYDRO-1, which includes erosion and water quality control measures, as well as a SWPPP, would be implemented during the construction phase to avoid and minimize potential adverse impacts to water quality from erosion and sedimentation. Additionally, Project-related grading, trenching, and other earthwork resulting in soil disturbance could temporarily alter minor drainage patterns and increase the hazard of erosion and sedimentation. The implementation of the SWPPP and MM HYDRO-1 would minimize this impact by requiring the contractor to develop and implement applicable BMPs, which would substantially reduce off-site sediment transport and associated water quality degradation. Therefore, the potential for the Project to substantially alter the existing drainage pattern within the Project area in a manner that would result in substantial erosion or siltation would be considered less-than-significant with mitigation incorporated.

Operation

Once operational, the Proposed Project would not result in changes beyond existing operations, and therefore there would be no change related to erosion. There would be no operational impact.

ii, iii, iv) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows?

Finding: No Impact

Construction and Operation

The Proposed Project itself includes the replacement of the existing Scotts Flat Spillway chute and plunge pool to meet the updated PFM to accommodate high flood flows in Scotts Flat Reservoir. Implementation of this Project would therefore reduce potential impacts related to surface runoff and drainage systems. Therefore, the Proposed Project would not increase the rate or amount of surface runoff in a manner that would result in flooding within the Proposed Project area; it would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; nor would it impede or redirect flood flows. Therefore, there would be no impact.

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- d) ***Would the Project expose people or structures to a significant risk of loss, injury or death as a result of inundation of seiche, tsunami, or mudflow?***

Finding: No Impact

Construction and Operation

The Proposed Project itself includes the replacement of the existing Scotts Flat Spillway chute and plunge pool to meet the updated PFM to accommodate high flood flows in Scotts Flat Reservoir. Implementation of this Project would therefore reduce potential impacts of inundation by improving the chute flow capacity. As such, the Proposed Project would not increase the risk of these hazards, and no impact would occur.

- e) ***Would the Project conflict with or obstruct implementation of a Water Quality Control Plan or sustainable groundwater management plan?***

Finding: Less-than-significant Impact with Mitigation

Construction

As discussed under item “a” above, construction of the Proposed Project would result in temporary impacts related to erosion and water quality that could conflict with the Basin Plan. However, implementation of the required SWPPP, MM HAZ-1, and MM HYDRO-1, would reduce potential construction-related impact related to water quality to a less-than-significant level. MM HAZ-1 and MM HYDRO-1 would include the development and implementation of a Project-specific SPCCP and erosion and water quality BMPs, respectively. These measures would reduce erosion and runoff and protect water quality throughout Proposed Project construction. Therefore, impacts would be less-than-significant with mitigation incorporated.

Operation

Once operational, the Proposed Project would not result in changes beyond existing operations, and therefore there would be no change related to obstruction of water quality control plans or groundwater management plans. There would be no operational impact.

3.10.3 Mitigation Measures

3.10.3.1 MM HAZ-1: Develop and Use Spill Prevention Control and Countermeasure Plan

See MM HAZ-1, Section 3.7.

3.10.3.2 MM HYDRO-1: Erosion and Water Quality Best Practices

Prior to commencement of ground-disturbing activities, NID will identify site-specific BMPs to effectively control erosion and sediment loss and to protect water quality. During the Project, these BMPs for erosion and sediment control shall be implemented by NID and/or its contractor. These BMPs will include, but are not limited to:

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- Erosion control structures (e.g., coir rolls, plastic sheeting, rubber mats) will be placed in areas where high surface runoff is expected; around spoil piles; and at channel entrances or adjacent to drainage channels. If straw wattles or straw bales are used, all straw will be certified weed-free.
- Prior to the initiation of Project activities, NID and/or its contractor will prepare a SPCCP (**MM HAZ-1**) that will be implemented during Project activities.
- To reduce potential contamination by spills, all refueling, storage, servicing, and maintenance of equipment will be performed at designated sites and not within 50 ft of WOTUS/WOTS or other sensitive environmental resources. Absorbent material or drip pans will be used during refueling or servicing of trucks or other equipment. Any fluids drained from the machinery during servicing will be collected in leak-proof containers and taken to an appropriate disposal or recycling facility. If such activities result in spills or accumulation of a product on the soil, the contaminated soil will be disposed of properly.
- All maintenance materials (i.e., oils, grease, lubricants, antifreeze) will be stored at staging areas in appropriate storage containers. If these materials are required during Project implementation, they will be placed in a designated area away from site activities and sensitive resources.
- Surface roughening, berms, check dams, hay bales, or similar devices shall be used to reduce runoff velocity and erosion.
- Sediment shall be contained when conditions are too extreme for treatment by surface protection. Temporary sediment traps, filter fabric fences, inlet protectors, vegetative filters and buffers, or settling basins shall be used to detain runoff water long enough for sediment particles to settle out. Construction materials, including topsoil and chemicals, shall be stored, covered, and isolated to prevent runoff losses and contamination of groundwater.
- Topsoil removed during construction shall be carefully stored and treated as an important resource. Berms shall be placed around topsoil stockpiles to prevent runoff during storm events.

3.10.3.2.1 MM HYDRO-1 Implementation

Responsible Party: NID

Timing: During construction.

Monitoring and Reporting: Evaluation of the BMPs shall be conducted by NID. Reports on the NID implementation shall be documented by NID, with the SPCC and submitted to Nevada County and the RWQCB to be kept on file.

Standard of Success: Minimize the potential for, and effects from, erosion during construction activities in accordance with the requirements of this measure as well as federal and state laws.

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3.11 Land Use and Planning

3.11.1 Setting

As a special district with equal authority, NID is exempt from following goals and policies within the County's General Plan and Zoning Ordinance. However, NID aims to comply with those goals and policies and use them as a metric for formulating an impact analysis.

The Proposed Project is located in an unincorporated area of Nevada County, approximately four miles east of Nevada City. This area is governed by the Nevada County General Plan, adopted in 1996 and amended in 2008, 2010, 2014, and 2020 (Nevada County 1996, as amended). The Nevada County General Plan identifies land use designations for the Proposed Project site. The Nevada County Zoning Ordinance (Chapter II of the Nevada County Land Use and Development Code) identifies zoning districts for the Proposed Project site and surrounding area. The Proposed Project site is zoned as Public (P). According to the Nevada County Zoning Ordinance, the zoning code Public is defined as follows: The P District provides for areas occupied by federal, state and local government agencies, or by a private entity under contract, agreement or franchise with a governmental agency if the use is a service or function normally provided by the agency entering into a contract or agreement, or issuing a franchise (Nevada County 2024).

3.11.2 Impact Analysis

XI. LAND USE AND PLANNING Would the Project:	Potentially Significant Impact	Less-than- significant with Mitigation Incorporation	Less-than- significant Impact	No Impact
a) Physically divide an established community?				X
b) Cause a 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?				X

a) *Would the Project physically divide an established community?*

Finding: No Impact

Construction and Operation

The Proposed Project would involve the replacement of the existing Scotts Flat Spillway chute and plunge pool to accommodate the PMF and convey a flow of up to 23,990 cfs, as well as to reduce erosion risks along the spillway. There would be no additional changes to existing operations. Operations would be the same as current reservoir, release, and hydropower operations. The Proposed Project does not include components that could result in division of the surrounding community. Construction activities could disrupt travel through the area; however, such transportation impacts would be temporary and intermittent (See **Section 3.17** for further analysis on transportation impacts of the Proposed Project). The Proposed Project would not physically divide an established community and no impact would occur.

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- b) *Would the Project cause a 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?***

Finding: No Impact

Construction and Operation

As discussed above, construction activities associated with the Proposed Project would be temporary and intermittent. Operations would be the same as current reservoir, release, and hydropower operations, and would not hinder or otherwise impact surrounding land uses. The Proposed Project would not require changes to any land use designations or zoning classifications. Therefore, the Proposed Project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Proposed Project and would not contradict the planned uses of the land in which the Proposed Project is set to occur. There would be no impact.

3.11.3 Mitigation Measures

No mitigation is required.

3.12 Mineral Resources

3.12.1 Setting

As a special district with equal authority, NID is exempt from following goals and policies within the County's General Plan. However, NID aims to comply with those goals and policies and use them as a metric for formulating an impact analysis.

The Nevada County General Plan, specifically Chapter 17 Mineral Management Element, applies to lands in Nevada County which are outside the administration of the Bureau of Land Management, the Forest Service and other federal and state land-holding agencies. It recognizes that while mining on said lands may not be prohibited by the County, and thus the County's use permit process will not apply to such activities, such mining is subject to compliance with the County's health, sanitation, building, and environmental regulations. Recreational mining is allowed in all Nevada County General Plan designations without County permits. Mine exploration of limited scope and duration is allowed in designations compatible with mining but is restricted in incompatible designations. Large scale exploration projects, surface mines, and subsurface mines, however, require conditional use permits issued by the County, and most of these activities are disallowed in designations incompatible for mining. For example, surface mining is conditionally permitted in compatible designations that are zoned within the "ME" Mineral Extraction Combining District. Incompatible designations are generally in the more urban areas of the County, whereas compatible designations are generally in the more rural areas (Nevada County 1996, as amended).

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3.12.2 Impact Analysis

XII. MINERAL RESOURCES Would the Project:	Potentially Significant Impact	Less-than- significant with Mitigation Incorporation	Less-than- significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				X

- a) ***Would the Project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?***

Finding: No Impact

Construction and Operation

The Proposed Project area has a Nevada County General Plan and zoning designation of public. No mineral resources have been identified within the Proposed Project area and there are no areas with the Mineral Extraction designation. Therefore, implementation of the Proposed Project would not result in the loss of availability of a known mineral resource. Therefore, there would be no impact.

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

Finding: No Impact

Construction and Operation

The Proposed Project would not 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. According to the General Plan and Nevada County Zoning Ordinances, the Proposed Project area is not located within or near an area of known important mineral resources (Nevada County 2020). Therefore, no impact would occur.

3.12.3 Mitigation Measures

No mitigation is required.

3.13 Noise

3.13.1 Setting

Noise is commonly defined as unwanted sound in the environment. This definition reflects a subjective reaction to the characteristics of the physical phenomenon of noise. People judge the relative magnitude of sound sensation in subjective terms, such as “noisiness” or “loudness.” Although elevated noise levels

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can result in physiological damage and hearing loss, excessive noise in the environment more commonly impairs general human wellbeing by contributing to psychological stress and irritation. Such health effects can result when noise interferes with everyday human activities, such as sleep, talking, recreation, relaxation, and tasks requiring concentration. When noise is either disturbing or annoying, whether by its pitch or loudness, it may be considered objectionable.

The overall noise level associated with a given noise environment is called the “ambient” noise level. Ambient noise can be generated by a number of sources, including mobile sources, such as automobiles, trucks, trains, and airplanes, and stationary sources, such as construction sites, machinery, and industrial operations. Other contributing noise sources, often referred to as “background” sources, can include the sound of birds, people talking, occasional vehicles passing by, or televisions and radios.

Sound pressure magnitude is measured and quantified using a logarithmic ratio of pressures, the scale of which gives the level of sound in decibels (dB). Environmental sound levels are usually measured in A-weighted decibels, or dBA, which is a method of taking into account the sensitivity of the human ear to various frequencies in the sound spectrum. In general, a difference of three dB is barely perceptible to the human ear, while a difference of 10 decibels is perceived as a doubling of loudness. A common statistical tool used to measure the ambient noise level is the average, or equivalent, sound level (Leq), which is the sound level corresponding to a steady-state, A-weighted sound level containing the same total energy as a time-varying signal over a given period (usually one hour) (FTA 2018).

Factors that affect the transmission of noise between the noise source and the receptor include:

- **Line of Sight.** Barriers, such as topography, sound walls, and other structures, between a noise source and recipient can provide varying degrees of noise attenuation, particularly when placed near the noise source.
- **Distance.** A reduction in noise level of roughly six dBA occurs with each doubling of distance from a noise source, depending on the hardness of intervening surfaces.

The existing noise environment in the vicinity of the Project area retains rural quality, typical of a recreational area in the foothills. Soundscapes in the area include noise from passing vehicles; wildlife noises such as chirping birds; and occasional noise from recreation such as boats. Additionally, Highway 20 is located approximately 1.3 miles from the Proposed Project area and produces a more consistent noise from motorists. Due to the closure of the Scotts Flat Dam Campground for the Proposed Project duration, the nearest sensitive receptors would include the recreational users passing through the area on trails in the vicinity, campers at the adjacent Scotts Flat Main Gate Campground, and the nearest residence located 0.25-mile from the Project area.

3.13.1.1 Nevada County General Plan and Nevada County Code - Noise

As a special district with equal authority, NID is exempt from following goals and policies within the County’s General Plan and Zoning Ordinance. However, NID aims to comply with those goals and policies and use them as a metric for formulating an impact analysis, as feasible.

The below-listed policies from the Nevada County General Plan Noise Element are applicable to this Project (Nevada County 1996, as amended). These policies are implemented under Title 3, Chapter II, Article 4, Division 4.1.7 of the Nevada County Code:

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- **Policy 9.1:** The following noise standards (**Table 3.13-1**), as performance standards and land use compatibility standards, shall apply to all discretionary and ministerial Projects excluding permitted residential (including tentative maps) land uses.
- **Policy 9.9:** Limit future noise-generating land use to those locations of the County where their impacts on noise-sensitive land uses will be minimized, consistent with the standards found in Policy 9.1.
- **Policy 9.10:** Require the preparation of a comprehensive noise study for all land use determined to have a potential to create noise levels inconsistent with those standards found in Policy 9.1, and in accordance with the methodology identified in the Noise Element Manual contained in General Plan Volume 2, Section 3 – Noise Analysis Appendix A.

Table 3.13-1 Noise Exposure Limits, Nevad County General Plan – Noise Element

Land Use Category	Time Period	Leq dBA	Lmax dBA
Rural	7 a.m. – 7 p.m.	55	75
	7 p.m. – 10 p.m.	50	65
	10 p.m. – 7 a.m.	40	55
Residential and Public	7 a.m. – 7 p.m.	55	75
	7 p.m. – 10 p.m.	50	65
	10 p.m. – 7 a.m.	45	60
Commercial and Recreation	7 a.m. – 7 p.m.	70	90
	7 p.m. – 7 a.m.	65	75
Business Park	7 a.m. – 7 p.m.	65	85
	7 p.m. – 7 a.m.	60	70
Industrial	Anytime	80	80

Source: Nevada County 1996, as amended

Notes:

- Where two different zoning districts abut, the standard applicable to the lower, or more restrictive, district plus 5 dBA shall apply.
- The above standards shall be measured only on property containing a noise-sensitive land use as defined in Policy 9.8 and may be measured anywhere on the property containing said land use.
- If the measured ambient level exceeds that permitted, then the allowable noise exposure standard shall be set at 5dB above the ambient.
- Because of the unique nature of sound, the County reserves the right to provide for a more restrictive standard than shown in this table. The maximum adjustment shall be limited to no less than the current ambient noise levels and shall not exceed the standards of this policy or as they may be further adjusted by Policy 9.1b.
- The above standards shall not apply to those activities associated with the actual construction of a project or to those projects associated with the provision of emergency services or functions.

3.13.2 Impact Analysis

XIII. NOISE Would the Project:	Potentially Significant Impact	Less-than-significant with Mitigation Incorporation	Less-than-significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the			X	

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XIII. NOISE Would the Project:	Potentially Significant Impact	Less-than- significant with Mitigation Incorporation	Less-than- significant Impact	No Impact
local general plan or noise ordinance, or applicable standards of other agencies?				
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
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?				X

- a) ***Would the Project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***

Finding: Less-than-significant

Construction

Construction of the Proposed Project would occur over from April through December for four years and would include demolition, vegetation removal and excavation, concrete and materials placement, and site restoration activities. Groundborne noise and other types of construction-related noise impacts would typically occur during the demolition, and excavation phase and would have the potential to create the highest levels of noise. As such, the demolition and excavation phase represent the worst-case condition for short-term construction noise levels that may occur at the nearest adjoining noise-sensitive receptors (i.e. campers and recreational users).

Construction noise is difficult to quantify because of the many variables involved, including the specific equipment types, size of equipment used, percentage of time that each piece is in operation, condition of each piece of equipment, and number of pieces that would operate on the site. Construction equipment produces maximum noise levels when the equipment is operating under full power conditions (i.e., the equipment engine at maximum speed). However, equipment used on construction sites typically operates under less than full power conditions, or partial power. To characterize construction period noise levels more accurately, the Leq associated with each construction stage is calculated based on the quantity, type, and usage factors for each type of equipment that would be used during each construction stage. These noise levels are typically associated with multiple pieces of equipment simultaneously operating on partial power. Demolition, excavation, concrete placement, and restoration activities would use typical construction equipment, such as excavators, rubber-tired dozers, mobile cranes, concrete mixers, pavers, tractors/loaders/backhoes, and plate compactors. The maximum sound level from typical construction equipment would vary from approximately 49 dBA to 57 dBA at a distance of 0.25 miles (i.e., the approximate distance to the Scotts Flat Main Gate Campground) (FHWA 2024).

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Pursuant to the Nevada County General Plan – Noise Element and County Code, construction activities are exempt from noise restrictions. However, construction activities would comply with the construction hours outlined in **Table 3.13-1**. These permitted hours of construction recognize that construction activities undertaken during daytime hours are a typical part of living in a rural and recreational environment and do not cause a significant disruption. In addition, the Proposed Project construction activities would occur from April to December each year and would not be occurring year-round. Given the variable nature of Proposed Project construction and the implementation of time limits specified in Nevada County General Plan and County Code, short-term construction noise impacts would be less-than-significant.

Operations

The Proposed Project would not introduce substantial new noise to the area during operation. Therefore, there would be no operational impact associated with generation of noise in excess of local standards.

b) *Would the Project result in exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?*

Finding: Less-than-significant

Vibration refers to groundborne noise and perceptible motion. Typical sources of groundborne vibration are construction activities (e.g., blasting, pile driving, and operating heavy-duty, earth-moving equipment), steel-wheeled trains, and occasional traffic on rough roads. The U.S. Department of Transportation Federal Transit Administration (FTA) provides guidelines for maximum-acceptable vibration criteria for different types of land uses. Construction activity can result in varying degrees of groundborne vibration depending on the equipment and methods used, distance to the affected structures, and soil type. Construction equipment such as air compressors, light trucks, and hydraulic loaders generate little or no ground vibration. Occasionally, large, loaded trucks can cause perceptible vibration levels at close proximity. The FTA guidelines of 80 vibration decibels (VdB) for sensitive land uses provide the basis for determining the relative significance of potential Project-related vibration impacts.

The Proposed Project does not include components that would generate excessive vibration. Project construction would not include activities such as blasting or pile driving that would cause excessive ground borne vibration (i.e. 80 VdB). Therefore, the potential for the Proposed Project to result in the generation of excessive ground borne vibration or ground borne noise levels would be considered less-than-significant.

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?*

Finding: No Impact

The nearest airport to the Proposed Project area is the Nevada County Airport, which is located approximately 5 miles southwest of the Proposed Project area. Therefore, the Proposed Project would not be located within the vicinity of a private airstrip and would not expose people residing or working on the Project area to excessive noise levels. Therefore, no impacts would occur.

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Impact Analysis – Population / Housing
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3.13.3 Mitigation Measures

No mitigation is required.

3.14 Population / Housing

3.14.1 Setting

The Proposed Project is located in an unincorporated area of Nevada County, approximately four miles east of Nevada City, and is adjacent to Scotts Flat Reservoir. According to the 2020 Decennial Census, Nevada County had an estimated population of 102,037 individuals (US Census Bureau 2023). In the most recent Housing Element Update (2019), the unincorporated area of Nevada County has seen a slight increase in population consistent with population trends in the three incorporated areas within the County (Nevada County 2019).

3.14.2 Impact Analysis

XIV. POPULATION AND HOUSING: Would the Project:	Potentially Significant Impact	Less-than- significant with Mitigation Incorporation	Less-than- significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

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

Finding: No Impact

Construction and Operation

The Proposed Project would involve the replacement of the existing Scotts Flat Spillway chute and plunge pool to accommodate the PMF and convey a flow of up to 23,990 cfs, as well as to reduce erosion risks along the spillway. Operations would be the same as current reservoir, release, and hydropower operations. The Proposed Project does not include construction of houses, businesses, or infrastructure that could induce population growth in the area. Additionally, the Proposed Project would not result in the permanent creation of new jobs that would induce substantial population growth. Construction workers are anticipated to come from surrounding areas and thus would not relocate to the Proposed Project vicinity. Therefore, the Proposed Project would not either directly or indirectly induce unplanned population growth in the Proposed Project area. No impact would occur.

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

Finding: No Impact

Construction and Operation

The Proposed Project would not provide new housing units or remove any existing housing units. The Proposed Project would not require the displacement of housing units or people within the Proposed Project area and there would be no impact.

3.14.3 Mitigation Measures

No mitigation is required.

3.15 Public Services

3.15.1 Setting

Public facilities and services within Nevada County are provided by a multitude of agencies. In addition, the County, services are provided by school districts, fire districts, water districts, sewer districts, public utility districts, park districts and other single purpose districts, as well as by federal and state agencies.

3.15.1.1 Fire Protection

There are currently 11 separate fire districts that serve Nevada County, including CAL FIRE. The Nevada County Consolidated Fire District (NCCFD) currently serves the Proposed Project area. The nearest fire station to the Proposed Project site is NCCFD Station 86, which is located approximately 6.8 miles to the southwest at 12337 Banner Lava Cap, Nevada City, California, 95959. Station 86 has full-time staffing, 24 hours a day, seven days a week (NCCFD 2024).

3.15.1.2 Police Protection

Law enforcement services in the Project area are provided by the Nevada County Sheriff's Department, with offices located at the Eric W. Rood Center in the Nevada County Government Center in Nevada City and in the Joseph Center in Truckee. The Nevada City Sheriff's Office is located at 950 Maidu Avenue, Nevada City, California, 95959, approximately nine miles west of the Proposed Project area. The Truckee Sheriff's Office is located at 10879 Donner Pass Road, Truckee, California, 96161, approximately 50 miles west of the Proposed Project area.

3.15.1.3 Schools

The closest schools to the Proposed Project are Deer Creek School and Seven Hills School, both located approximately 7.5 miles west of the Proposed Project.

3.15.1.4 Parks

There are three recreation and park districts in Nevada County: Western Gateway Regional and Bear River in western County, and Truckee-Donner Recreation and Park District in eastern Nevada County.

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Scotts Flat Reservoir Trail and Scotts Flat Main Gate Campground are immediately adjacent to the Proposed Project area. The Scotts Flat Main Gate Campground is owned and operated by NID.

3.15.2 Impact Analysis

XV. PUBLIC SERVICES and UTILITIES Would the Project:	Potentially Significant Impact	Less-than- significant with Mitigation Incorporation	Less-than- significant Impact	No Impact
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?				X
Police protection?				X
Schools?				X
Parks?			X	

- a) ***Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services: Fire protection? Police protection? Schools? Parks?***

Finding: No Impact

Construction and Operation

The Proposed Project would not directly or indirectly increase the population of Nevada County. The Proposed Project would not significantly affect the response times of fire protection or other public services or increase demand for such services. Public access to Scotts Flat Dam Campground and Dam Road would be closed during the life of the Proposed Project. The Proposed Project may require temporary lane closures and one-way traffic control on Scotts Flat Road to complete construction. Construction traffic control is not anticipated to significantly interfere with police and fire response times. The Proposed Project would be coordinated with the NCCFD and County Sheriff's Office, and other law enforcement or emergency service providers within the area, through a Construction Traffic Control Plan. Construction activities would be temporary and any increase in police or fire services that could result from accident or emergency incidents would cease upon construction completion. There are no schools within or adjacent to the Proposed Project area that would be affected by construction activities. No population growth would be generated that would increase the use and deterioration of existing recreational facilities, nor does the Proposed Project include any recreational facility components. If needed, emergency access to the Proposed Project area would occur through Scotts Flat Dam

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Campground Road although it will be closed to the public for the duration of the Proposed Project. Therefore, the Proposed Project would have a less-than-significant impact related to physical deterioration of recreational facilities during construction. The demands on parks and other public facilities upon completion of construction would return to existing conditions. Thus, the Proposed Project would not require new or altered parks or other facilities.

3.15.3 Mitigation Measures

No mitigation is required.

3.16 Recreation

3.16.1 Setting

Nevada County contains numerous recreational areas that are owned by various federal, state, and local agencies. The Proposed Project area is located in a rural area, adjacent to Scotts Flat Reservoir. There are numerous recreational areas within and surrounding Scotts Flat Reservoir including trails/hiking, camping, fishing, boating, swimming, and picnicking. Scotts Flat Reservoir Trail and Scotts Flat Main Gate Campground are adjacent to the Proposed Project area. The Scotts Flat Main Gate Campground is owned and operated by NID.

3.16.2 Impact Analysis

XVI. RECREATION Would the Project:	Potentially Significant Impact	Less-than- significant with Mitigation Incorporation	Less-than- significant Impact	No Impact
a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?		X		
b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?		X		

- a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?***

Finding: Less-than-significant Impact with Mitigation Incorporated

Construction

The Proposed Project construction would not increase the use of existing neighborhood and regional parks or other recreational facilities to the extent that substantial physical deterioration of the facility would occur or be accelerated. No population growth would be generated that would increase the use and

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deterioration of existing recreational facilities, nor does the Proposed Project include any recreational facility components. Construction access to the Proposed Project area would occur primarily through Scotts Flat Dam Campground Road. Therefore, the campground, including recreational trails and access within its boundary, will be closed to the public for the duration of the Proposed Project. The Proposed Project would not include impacts to the Scotts Flat Dam Campground or related facilities, and nor would there be impacts to the trails within the Proposed Project area. However, the Proposed Project may have impacts on other local recreational facilities or trails within the region due to the dispersal of those who would normally visit the Scotts Flat Dam Campground and its adjacent trails, etc. Therefore, with the implementation of MM REC-1 Alternate Recreational Signage, the Proposed Project would have a less-than-significant impact on the other regional recreational sites and facilities, as its aim would be to assist the public to find other options within the region in which to recreate.

Operations

The operation of the Proposed Project post-construction would not affect the recreation activities within the area. Routine maintenance would not interfere with the recreation activities. Operation of the Proposed Project would not have the potential to increase use that could substantially deteriorate park facilities or other facilities within the region. Therefore, no operational impact would occur.

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?*

Finding: Less-than-significant Impact with Mitigation Incorporated

The Proposed Project does not include recreational facilities or require the construction or expansion of recreational facilities within the Proposed Project. However, the Proposed Project may have an increased impact on other local recreational facilities or trails within the region due to the dispersal of those who would normally visit the Scotts Flat Dam Campground and its adjacent trails, etc. However, with the implementation of MM REC-1 Alternate Recreational Signage, additional signage and guidance for the public will aid in the dispersal of recreational opportunities and potential impacts to the local environment. Therefore, no adverse physical effect on park and recreational facilities would occur with the implementation of MM REC-1.

3.16.3 Mitigation Measures

3.16.3.1 MM REC-1: Alternate Recreational Signage

During dates of operation, NID shall post signage at the following locations to alert the public of the Scotts Lake Dam Campground closure:

- At the junction of Hwy 20 and Scotts Flat Road
- At the entrance of Scotts Flat Dam Campground
- At the entrance of Scotts Flat Main Gate Campground
- Optional: at local businesses (i.e., Harmony Ridge Market at 18848 CA-20, Nevada City, CA 95959)

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Signage shall include information regarding closure status and dates as well as alternative NID-operated options within the region for camping (i.e., Scotts Flat Main Gate Campground; Rollins Lake; Jackson Meadows Lake; and Faucherie, Silvertip and Aspen Grove Campgrounds). Information included on the signage may also include a website, maps and/or reservation information and booking instructions for other NID-operated recreational facilities and opportunities within the region.

3.16.3.1.1 MM REC-1 Implementation

Responsible Party: NID

Timing: Prior to and during all phases of construction.

Monitoring and Reporting: NID shall perform regular inspections of the signage to ensure proper maintenance and functionality of the signage.

Standard of Success: The public is provided information regarding other recreational opportunities for the duration of Proposed Project.

3.17 Transportation and Traffic

3.17.1 Setting

3.17.1.1 Existing Roadway Network

The Proposed Project is located in unincorporated Nevada County and is adjacent to Scotts Flat Reservoir. Access from the north to the Proposed Project site for construction truck traffic is planned via Hwy 49 north to Hwy 20 east to Scotts Flat Road, Scotts Flat Dam Campground Road, and the Dam Road. Access from the south side of the Scotts Flat Dam would be from the existing paved Pasquale Road and Dam Road.

According to the General Plan, Scotts Flat Road, starting from State Hwy 20 to Alpine Meadows Camp, is classified as a County maintained road. In addition to County maintained roads, the County has an extensive network of privately owned and maintained roads. These roads provide primary access to the majority of residential parcels in the County but are outside the County's control. For this reason, private roads have not been functionally classified, even in cases where they serve as collectors.

3.17.1.2 Bicycle/Pedestrian Facilities

According to the General Plan, the number of existing bicycle, pedestrian, and equestrian trails in Nevada County are limited. These trails are primarily oriented toward recreational use and do not typically provide connections for non-auto transportation within the urbanized areas of Nevada County (Nevada County 1996, as amended).

There are no sidewalks or bicycle lanes along the roadways in the Project vicinity or the work area. Additionally, the Proposed Project area is not served by public transit.

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Impact Analysis – Transportation and Traffic
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3.17.2 Impact Analysis

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

a) *Would the Project conflict with an applicable plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?*

Finding: Less-than-significant

Traffic associated with the Proposed Project will be limited to primarily construction staff commuting to the site. Additional traffic may be required during mobilization/demobilization activities at the beginning and end of each construction season (approximately two days per construction season). Construction-related vehicles traveling to and from the Proposed Project area including worker commuter trips and truck trips for construction material would create a temporary increase of traffic on local roadways. Project construction is not expected to conflict with any plan, ordinance, or policy related to effective circulation, since the roads are very rural with low traffic volumes. In the long-term, the Proposed Project would not result in an increase in traffic or change traffic patterns in the area. There would be no permanent impacts to the performance of the circulation system, including transit, roadway, bicycle, or pedestrian facilities. Impacts would be less-than-significant.

b) *Would the Project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?*

Finding: Less-than-significant

Pursuant to Section 15064.3(b) of the CEQA Guidelines, a project that would reduce or have no impact on vehicle miles traveled should be presumed to have a less-than-significant impact. The Proposed Project would not result in additional truck trips during operation beyond current conditions and, therefore, would be consistent with CEQA Guidelines Section 15064.3(b). Construction of the Proposed Project would result in temporary material haul trips and worker trips to the Proposed Project area and staging areas throughout the construction period. These truck trips would be limited in duration and daily quantity, averaging about one truck trip per day during peak construction periods, and would be sporadic over the duration of construction, with more truck trips occurring during material delivery and fewer truck trips during installation of Project features. These additional truck trips would not result in a substantial

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increase in vehicle miles traveled and, therefore, construction of the Proposed Project would also be consistent with the CEQA Guidelines Section 15064.3(b). The impact would be less-than-significant.

c) *Would the Project substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

Finding: No Impact

The Proposed Project does not include any new design features on roadways and would not result in any associated hazards. The Proposed Project would not change the design of the existing roadways or access points throughout the area, nor would it introduce incompatible uses after construction. Therefore, there would be no impact.

d) *Would the Project result in inadequate emergency access?*

Finding: Less-than-significant Impact with Mitigation

Construction and operation of the Proposed Project would not result in any physical changes to the transportation system or traffic operations that would potentially affect emergency access. However, construction activities may temporarily impact public roadways, which could result in inadequate emergency access through the area. As such, MM TRANS-1 would be implemented, which would require emergency services access to be maintained throughout Project construction through the development of a Construction Traffic Control Plan. Therefore, impacts related to inadequate emergency access would be less-than-significant with mitigation incorporated.

Once construction activities are complete, no long-term sources of Project traffic would occur that would interfere with emergency access. Therefore, there would be no operational impact.

3.17.3 Mitigation Measures

3.17.3.1 MM TRANS-1: Prepare and Implement a Construction Traffic Control Plan

NID shall require the contractor(s) to prepare a Construction Traffic Control Plan in accordance with Nevada County requirements and professional engineering standards prior to construction. Traffic control plans shall propose temporary road closures and/or one-way lane traffic control for Scotts Flat Road.

The Construction Traffic Control Plan shall be subject to Nevada County approval and may include the following conditions:

- Post signage seven days in advance of work along Scotts Flat Road and notifying dates of Scotts Flat Dam Campground closure and alternate access routes as needed.
- Notify affected residents of closure 48 hours in advance.
- Barricade roadway at least 50 ft prior to work area.
- Barricade driveways between roadway barricades.
- Provide a detailed sign detour plan to Nevada County Department of Public Works 14 days prior to closure.

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- Maintain emergency services access at all times for the duration of construction activities. Inform local emergency service providers of proposed construction activities and identified haul routes.
- Adequate provisions shall be made for the protection of the traveling public. All traffic control, including devices and personnel requirements, shall be required per the current State of California Manual of Traffic Controls for Construction and Maintenance Work Areas.
- NID or its contractor(s) shall be required to restore roads that are damaged by construction to pre-construction conditions where feasible. This may include repaving, retraveling, or grading disturbed areas. NID shall document road conditions pre-construction to provide a basis for restoration.
- Other specific requirements for proposed road closures will be confirmed with Nevada County Department of Public Works.

3.17.3.1.1 MM TRANS-1 Implementation

Responsible Party: NID or its contractor shall develop and implement a Construction Traffic Control Plan.

Timing: Prior to and during all phases of construction.

Monitoring and Reporting: NID shall monitor and coordinate with the contractor during weekly construction meetings to ensure that the Traffic Control Plan is implemented successfully as documented in inspection logs, and the Traffic Control Plan shall remain on file at NID.

Standard of Success: Traffic flow remains at acceptable levels, emergency access remains reasonably possible at all times, recreational users are appropriately notified of road closures, and the Proposed Project area remains in compliance with all applicable transportation goals, policies, and requirements.

3.18 Tribal Cultural Resources

3.18.1 Setting

Per PRC 21074(a), Tribal Cultural Resources (TCRs) are defined as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are either: 1) included or determined to be eligible for inclusion in the CRHR; or 2) included in a local register of historical resources. Additionally, per PRC 21074(a)(1)(2), a TCR is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1(c).

PRC Section 21080.3.1 requires that local agencies formally consult with recognized California Native American tribes during the CEQA process to discuss potential impacts on TCRs. Prior to the release of a Negative Declaration, Mitigated Negative Declaration, or EIR, the agency must initiate consultation with tribes that are traditionally and culturally affiliated with the geographic area of a Proposed Project if 1) the Tribe requested of the agency, in writing, to be informed through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the Tribe; and 2) the Tribe

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responds, in writing, within 30 days of receipt of the formal notification of a proposed project and requests consultation with the agency (PRC Section 21080.3.1[b]).

3.18.2 Study Methods

3.18.2.1 Native American Heritage Commission Sacred Lands File Search

Stantec contacted the NAHC on September 12, 2023, requesting a search of the Sacred Lands File, which provides information about traditional cultural properties/TCRs and stakeholders. The NAHC is the official state repository of Native American sacred site location records in California. Stantec conducted an updated search on January 27, 2026. Stantec received a response on January 27, 2026, from the NAHC, stating that the results were negative. A list of 16 Tribal contacts from seven California Native American tribes was also provided with the NAHC response. Listed California Native American tribes include:

- Colfax-Todd Valley Consolidated Tribe
- Nevada City Rancheria Nisenan Tribe
- Susanville Indian Rancheria
- Tsi-Akim Maidu
- United Auburn Indian Community of the Auburn Rancheria
- Washoe Tribe of Nevada and California
- Wilton Rancheria

3.18.2.2 Native American Consultation

On January 29, 2026 NID sent letters to seven Tribal contacts informing them of the proposed Project and formally inviting them to consultation pursuant to PRC Section 21080.3.1 (i.e., AB 52). Letters containing details about the Proposed Project were sent to the Colfax-Todds Valley Consolidated Tribe, Nevada City Rancheria Nisenan Tribe, Susanville Indian Rancheria, TSI-AKIM Maidu of the Taylorsville Rancheria, United Auburn Indian Community of the Auburn Rancheria (UAIC), Washoe Tribe of Nevada and California, and Wilton Rancheria. In an email dated February 18, 2026, Wilton Rancheria identified that the Proposed Project is within their ancestral territory but the Tribe did not have comments and did not wish to open consultation at that time. In an email dated February 24, 2026, the UAIC identified the area as potentially culturally sensitive, requested to formally consult pursuant to AB 52, and requested to conduct a Tribal survey for the identification for TCRs. The UAIC conducted a Tribal survey on March 20, 2026, and on April 7, 2026 and June 30, 2026, NID followed up with UAIC via email to request any further information the Tribe was willing to share.

UAIC responded in an email dated June 30, 2026, that there are no known TCRs recorded and that the Tribal survey did not identify any TCRs in the project area and there is a medium to low potential for buried TCRs to be present. UAIC further stated they would like to close AB 52 consultation with the incorporation of MM, which would reduce potential impacts to TCRs to less-than-significant. With NID's

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incorporation of MM TCR-1: Unanticipated Discoveries, UAIC stated that AB 52 consultation can be closed, pursuant to § 21080.3.2. (b)(1).

No other responses were received from any of the California Native American tribes contacted by NID as part of AB 52 consultation.

3.18.3 Impact Analysis

XVIII. TRIBAL CULTURAL RESOURCES					
a)	Would the Project cause a substantial adverse change in the significance of a TCRs, defined in PRC 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:	Potentially Significant Impact	Less-than-significant with Mitigation Incorporation	Less-than-significant Impact	No Impact
i)	Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k), or		X		
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 PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.		X		

- a) ***Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size, or object with cultural value to the California Native American Tribe and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k).***

Finding: Less-than-Significant with Mitigation

Although there were no known TCRs recorded and the Tribal survey did not identify any TCRs in the project area there is a medium to low potential for buried TCRs to be present. As such, MM TCR-1 would be implemented, which would address the identification and treatment of unanticipated discoveries of TCRs or resources of cultural significance during ground-disturbing activities. Therefore, impacts related to TCRs would be less-than-significant with mitigation incorporated.

- b) ***Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size, or object with cultural***

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

Finding: Less-than-Significant with Mitigation

Although there were no known TCRs recorded and the Tribal survey did not identify any TCRs in the project area there is a medium to low potential for buried TCRs to be present. As such, MM TCR-1 would be implemented, which would address the identification and treatment of unanticipated discoveries of TCRs or resources of cultural significance during ground-disturbing activities. Therefore, impacts related to TCRs would be less-than-significant with mitigation incorporated.

3.18.4 Mitigation Measures

3.18.4.1 MM TCR-1: Unanticipated Discoveries

If any suspected TCRs or resources of cultural significance to California Native American tribes, including but not limited to features, anthropogenic/cultural soils, cultural belongings or objects (artifacts), shell, bone, shaped stones or bone, or ash/charcoal deposits are discovered by any person during construction activities including ground-disturbing activities, all work shall pause immediately within 100 ft of the find, or an agreed upon distance based on the project area and nature of the find. Work shall cease in and within the immediate vicinity of the find regardless of whether the construction is being actively monitored by a Tribal Monitor, cultural resources specialist, or professional archaeologist.

A Tribal Representative and NID shall be immediately notified, and the Tribal Representative in coordination with NID shall determine if the find is a TCR (PRC §21074) and the Tribal Representative shall make recommendations for further evaluation and treatment as necessary.

Treatment and Documentation:

The culturally affiliated Tribe shall consult with NID to (1) identify the boundaries of the new TCR and (2) if feasible, identify appropriate preservation in place and avoidance measures, including redesign or adjustments to the existing construction process, and long-term management, or 3) if avoidance is infeasible, a reburial location in proximity of the find where no future disturbance is anticipated. Permanent curation of TCRs will not take place unless approved in writing by the culturally affiliated Tribe.

The construction contractor(s) shall provide secure, on-site storage for culturally sensitive soils or objects that are components of TCRs that are found or recovered during construction. Only Tribal Representatives shall have access to the storage. Storage size shall be determined by the nature of the TCR and can range from a small lock box to a conex box (shipping container). A secure (locked), fenced area can also provide adequate on-site storage if larger amounts of material must be stored.

The construction contractor(s) and NID shall facilitate the respectful reburial of the culturally sensitive soils or objects. This includes providing a reburial location that is consistent with the Tribe's preferences, excavation of the reburial location, and assisting with the reburial, upon request.

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Any discoveries shall be documented on a Department of Parks and Recreation (DPR) 523 form within 2 weeks of the discovery and submitted to the appropriate CHRIS center in a timely manner.

Work at the TCR discovery location shall not resume until authorization is granted by NID in coordination with the culturally affiliated Tribe.

If articulated or disarticulated human remains, or human remains in any state of decomposition or skeletal completeness are discovered during construction activities, the Nevada City/Nevada County Coroner and the culturally affiliated Tribe shall be contacted immediately. Upon determination by the Nevada City/Nevada County Coroner that the find is Native American in origin, the NAHC will assign the Most Likely Descendent who will work with the project proponent to define appropriate treatment and disposition of the burials.

3.18.4.1.1 MM TCR-1 Implementation

Responsible Party: NID or its contractor shall follow the Unanticipated Discoveries notification, treatment and documentation process.

Timing: Prior to and during all phases of construction.

Monitoring and Reporting: NID shall monitor and coordinate with the contractor during weekly construction meetings to ensure that the process for Unanticipated Discoveries is being followed successfully.

Standard of Success: In the event of an Unanticipated Discovery, Tribal Representatives are notified, involved in determinations of TCRs, and provided the opportunity to make recommendations for further evaluation and treatment. Additionally, that treatment and documentation follows the process in MM TCR-1 and the Proposed Project area remains in compliance with all applicable TCR policies and requirements.

3.19 Utilities and Service Systems

3.19.1 Setting

3.19.1.1 Water

In the eastern County, the primary purveyors for public water supply are Truckee Donner Public Utility District, the Donner Summit Public Utility District, Donner Lake Utility Company, and Glenshire Mutual Water Company. The Proposed Project area, located in the western County, is served primarily by the NID and the cities of Nevada City and Grass Valley (Nevada County 1996, as amended). Originating in the headwaters of the Yuba River, Bear River and Deer Creek, NID's water begins as snowmelt found in 70,000 acres of high elevation watershed (NID 2024). NID operated seven hydroelectric plants and 12 miles of overhead power lines that deliver 83 megawatts of clean, carbon free energy to the electric power grid. Every year the revenue from the hydroelectric sales offsets water rates for the District's customers. Additionally, NID moves water through 450 miles of canal to become irrigation water for 30,000 acres of farmland annually (NID 2024).

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3.19.1.2 Wastewater

Public sanitary sewer systems in the western part of the County are provided by the cities of Grass Valley and Nevada City and the Nevada County Sanitation District No. 1. The Nevada County Department of Sanitation operates and maintains the sewage collection and treatment facilities for areas outside Grass Valley and Nevada City constructed by the Sanitation District (Nevada County 1995). The Proposed Project area is not located within one of Nevada County's 13 sanitation district zones, and has on-site septic tanks and sewer ponds.

3.19.1.3 Solid Waste

The Solid Waste Division of Public Works Department oversees garbage disposal, recycling services, and transfer station operations throughout Nevada County. The Division also oversees the maintenance of the closed landfills.

Nevada County currently has three operating transfer stations in the County located at McCourtney Road, North San Juan, and in the Town of Washington. The closest transfer station to the Proposed Project area is the McCourtney Road Transfer Station (MRTS), located at 14741 Wolf Mountain Road, approximately 15 miles southwest of the Proposed Project area.

3.19.1.4 Gas and Electricity

PG&E is the electric provider in western Nevada County (Nevada County 2024). PG&E provides electrical transmission and distribution services to the Project area. Natural gas providers vary throughout Placer County.

3.19.2 Impact Analysis

XIX. UTILITIES AND SERVICE SYSTEMS Would the Project:	Potentially Significant Impact	Less-than- significant with Mitigation Incorporation	Less-than- significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				X
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?				X

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XIX. UTILITIES AND SERVICE SYSTEMS Would the Project:	Potentially Significant Impact	Less-than- significant with Mitigation Incorporation	Less-than- significant Impact	No Impact
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				X

- a) *Would the Project 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?***

Finding: Less-than-significant Impact

The Proposed Project would not require the construction of new water facilities, wastewater treatment facilities, stormwater drainage, natural gas, or telecommunications, or the expansion of existing facilities, the construction of which could cause significant environmental effects. The Proposed Project would involve replacement of the existing Scotts Flat Spillway chute and plunge pool to meet the PMF and convey flows up to 23,990 cfs. Wastewater would not be generated as a result of construction or operation of the Proposed Project, nor would any substantial increases in water or electrical use be required. The Proposed Project would address the existing insufficient chute flow capacity and extensive erosion potential at the lower plunge pool. Therefore, the Proposed Project would not result in nor require the construction of new water, wastewater, stormwater, electrical power, natural gas, or telecommunications infrastructure, and a less-than-significant impact would occur.

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

Finding: No Impact

The Proposed Project is intended to address the existing insufficient chute flow capacity and extensive erosion potential at the lower plunge pool, resulting in the need for replacement of the spillway chute and upper and plunge pools. No additional or expanded entitlements are necessary for construction or operation of the Proposed Project. Therefore, there would be no impact.

- 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?***

Finding: No Impact

The Proposed Project does not include the construction of any new buildings or structures that would be used for human occupancy or result in increased wastewater use. The Proposed Project does not involve any wastewater infrastructure alterations or increases in wastewater capacity. Therefore, there would be no impact.

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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?*

Finding: Less-than-significant

Construction would generate solid waste associated with construction materials, excavation spoils, vegetation removal, and general refuse. Any material that cannot be used as fill material would be disposed of at a local landfill. The closest landfill to the Project area is the MRTS, located at 14741 Wolf Mountain Road, approximately 15 miles southwest of the Proposed Project area. Negligible volumes of debris and waste would be generated during Project construction, and the Project would be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs. The Project would not generate additional waste once operational. As such, impacts related to solid waste disposal would be less-than-significant.

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

Finding: No Impact

The Proposed Project would comply with all applicable federal, state, and local statutes and regulations related to solid waste, including recycling programs. The Proposed Project would not impair the County's requirements under AB 939 for 50 percent landfill diversion. Once operational, the Proposed Project would not result in an increase in the amount of solid waste produced from maintenance in the Project area. No impact would occur.

3.19.3 Mitigation Measures

No mitigation is required.

3.20 Wildfire

3.20.1 Setting

Residents of Nevada County are concerned about the effects of wildfire on their community. Devastating wildfires in the region have heightened the awareness of the potential impacts and have prompted local residents, government officials, and fire department personnel to join together to review and update the Community Wildfire Protection Plan for Nevada County and plan actions to be taken to protect human life, property, and reduce the risk of future wildfire-related disasters to the natural environment. Nevada County encompasses approximately 978 square miles of diverse and rugged rural lands in the northern Sierra Nevada Range. These landscapes are fire prone with both natural and anthropogenic sources of ignition.

The State of California and Nevada County FHSZ maps are based on an evaluation of fire history, existing and potential fuel, flame length, blowing embers, terrain, weather, and the likelihood of buildings igniting. CAL FIRE maintains FHSZ maps for Local Responsibility Areas and State Responsibility Areas. Fire hazard is a way to measure physical fire behavior so that people can predict the damage a fire is likely to cause. CAL FIRE analyzes potential fire hazard zones using the Fire and Resource Assessment Program, which takes into account fuels, terrain, weather, and other relevant factors. The Proposed

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Project is located in a State Responsibility Area (SRA) and is designated as a ‘very high’ fire severity zone (CAL FIRE 2024). CAL FIRE is responsible, in partnership with local jurisdiction, for fire planning in SRAs. Additionally, the Nevada County Office of Emergency Services is responsible for maintaining and updating Nevada County’s Local Hazard Mitigation Plan, which identifies community risks based on historical experience and data, modeling of frequency and magnitude of disasters projected, and develops mitigation strategies to build resiliency, avoid impacts, adapt to or mitigate risks. The Local Hazard Mitigation Plan is the implementing tool of Nevada County’s General Plan, specifically, the Safety Element.

A Community Wildfire Protection Plan (CWPP) is a document collaboratively developed to identify local solutions to wildland fire management. The primary goal of the Nevada County CWPP is to protect human life, private property, essential infrastructure and natural resources through the implementation of fire prevention projects that work to increase public awareness, improve forest health, sustain local wildlife, and preserve the natural beauty of the area through a shared responsibility concept. A CWPP for Nevada County was initially developed in 2006 and was updated in December 2024 (Nevada County Office of Emergency Services 2024). The plan identifies and prioritizes areas for hazardous fuels reduction treatments, addresses community preparedness, and recommends actions homeowners can take to reduce structure ignitability. The Proposed Project will be located in the Tahoe National Forest Area Forecast Zone. These zones will more acutely identify and analyze the differences in fire hazards across the County and identify community-specific wildfire risk reduction opportunities (Nevada County Office of Emergency Services 2024).

3.20.2 Impact Analysis

XX. WILDFIRE If located in or near SRA or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less-than-significant with Mitigation Incorporation	Less-than-significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
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?		X		
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?				X
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?		X		

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a) *Would the Project substantially impair an adopted emergency response plan or emergency evacuation plan?*

Finding: Less-than-significant

The activities associated with the Proposed Project would not result in any permanent changes that would impair an adopted emergency response plan or emergency evacuation plan, as they would not create a long-term increase in traffic, block any roadways, or increase any urban uses. However, the Proposed Project will include the closure of Scotts Flat Dam Campground for the duration of the Proposed Project as well as potential one-way (temporary) traffic control along Scotts Flat Road. The Scotts Flat Dam Campground closure and temporary traffic control measures have the potential to impair emergency response or emergency evacuation access in the area, which, in turn, could result in a potentially significant impact prior to mitigation. MM TRANS-1 would be required and would include development of a Traffic Control Plan in conformance with Caltrans and Nevada County requirements and professional engineering standards prior to construction. This Traffic Control Plan would include requirements for maintaining emergency services access throughout construction activities and coordination with local residents to maintain access to residential units. Therefore, with implementation of MM TRANS-1, the Proposed Project would result in a less-than-significant impact. Access to emergency vehicle along adjacent roadways, including Scotts Flat Dam Campground and Dam Road, would be maintained during construction; however, the Proposed Project may require temporary lane closures and one-way traffic control to complete construction, as outlined in **Section 3.17 Transportation, Mitigation Measure TRANS-1**.

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

Finding: Less-than-significant with Mitigation

Construction and Operation

The Proposed Project site is located within a moderately sloped rural area with a very high FHSZ. However, the Proposed Project does not include any permanent above-ground features that would house people who could be exposed to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Operations and maintenance of the Proposed Project, including reservoir levels, stream flows, and hydropower generation, during construction, between construction seasons, and post-construction would not change from the current (baseline) conditions. Therefore, there would be no permanent impacts.

During construction, the Proposed Project would require use of construction equipment and materials in the summer months near densely vegetated areas, which could increase the risk of wildfires created by sparks from the equipment. The Proposed Project area is also surrounded by cities and communities that are considered “Communities at Risk” (as defined by the California Fire Alliance and formally registered), including Nevada City, located approximately five miles west of the Proposed Project, meaning that they are at risk from major wildfires. Therefore, should a fire be accidentally ignited during construction, the topography of the Proposed Project area combined with the fact that it is densely forested to the south and west would contribute to an increased risk for severe or uncontrolled spread of the fire.

Implementation of MM HAZ-2 would include coordination with the local fire chief, Nevada County, and

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CAL FIRE, to ensure that fire control measures are in place to reduce the risk of fires during Proposed Project construction activities. Specifically, MM HAZ-2 will require NID and/or its contractor to implement standard fire prevention measures, including requiring fire prevention equipment to be available at all times as recommended by the fire chief and/or CAL FIRE, identifying construction sites as non-smoking areas, providing fire prevention training to construction personnel, and defining roles and responsibilities in the event of a fire. Impacts would be less-than-significant with mitigation.

- 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?***

Finding: No Impact

Construction and Operation

The Proposed Project would not require any permanent above-ground features that would exacerbate fire risk or result in ongoing impacts to the environment. Both existing access roads will be improved and new access roads will be constructed to improve access to complete the Proposed Project (Figure 2-3) to improve access though providing additional ingress and egress from the construction areas, which in turn will provide a beneficial long-term impact related to wildfire risk. Once constructed, the Proposed Project would have no operational impacts related to exacerbated fire risk. Therefore, the Proposed Project would have no impact related to increased risk due to installation or maintenance of associated infrastructure.

- 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?***

Finding: Less-than-significant with Mitigation

As described under question “(b)” above, the Proposed Project site is within a very high FHSZ and is surrounded by densely forested areas to the south and west, and cities and communities that are considered and formally registered as “Communities at Risk.” Therefore, should a fire be accidentally ignited during construction, the topography of the Proposed Project area combined with the fact that it is densely forested to the south and west, would contribute to an increased risk for severe or uncontrolled spread of the fire. Implementation of MM HAZ-2, Fire Suppression and Control, as described above, would include coordination with the local fire chief, Nevada County, and CAL FIRE, to ensure that fire control measures are in place to reduce the risk of fires during Proposed Project construction activities. Therefore, the Proposed Project would result in a less-than-significant impact during construction with mitigation incorporated.

There are no residences that are within or near the Proposed Project site; therefore, the Proposed Project poses no risk to people or residential structures from flooding, slope instability, or landslides. There would be no operational impact as a result of the Proposed Project.

3.20.3 Mitigation Measures

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3.20.3.1 MM TRANS-1: Prepare and Implement a Construction Traffic Control Plan

See Section 3.17, Transportation

3.20.3.2 MM HAZ-2: Fire Suppression and Control

See Section 3.8, Hazards and Hazardous Materials

3.21 Mandatory Findings of Significance

3.21.1 Impact Analysis

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

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

Finding: Less-than-significant with Mitigation

3.21.1.1.1 Biological Resources

While the Proposed Project would result in potentially significant impacts on biological resources, implementation of applicable biological BMPs and MMs as proposed in this CEQA document would ensure that the Proposed Project would not substantially degrade the quality of the environment; substantially reduce the habitat, population, or range of a plant or animal species; cause a fish or wildlife

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population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or reduce the number or restrict the range of a rare or endangered plant or animal.

As disclosed in **Section 3.4** of this document, biological resources that may occur in the Proposed Project area that may be affected by the Proposed Project include potential special status plant species and/or wildlife. However, with the implementation of biological MMs discussed in **Section 3.4** the Proposed Project is not expected to significantly impact any local, state, or federal listed rare and endangered species.

Overall, based on the ability of the identified MMs to reduce potential impacts to less-than-significant levels, the Proposed Project's impacts would be considered less-than-significant with mitigation incorporated.

3.21.1.1.2 Cultural Resources

As indicated in **Section 3.5, Cultural Resources**, potential cultural resources in the Proposed Project area were reviewed through a records search and reconnaissance-level field survey. The survey confirmed that the ground surface along the Project alignment has been previously disturbed and developed. No potentially significant cultural resources were identified as a result of the surveys. As such, it is considered unlikely that there are intact cultural deposits within the Project area. There is the possibility that subsurface archaeological deposits or human remains may exist within the alignment, as archaeological sites and/or human remains may be buried with no surface manifestation. However, with the implementation of cultural MMs discussed in **Section 3.5**, the Proposed Project is not expected to significantly impact any archaeological sites and/or human remains.

Therefore, with the implementation of the above MMs, the Proposed Project would not eliminate important examples of the major periods of California history or prehistory and impacts are considered less-than-significant.

b) Does the Project have impacts that are individually limited, but cumulative considerable? (“cumulative considerable” means that the incremental effects of a Project are considerable when viewed in connection with the effects of past Projects, the effects of other current Projects, and the effects of probable future Projects)?

Finding: Less-than-significant

As defined by Section 15344(b) of the CEQA Guidelines “the change in the environment which results from the incremental impact of the Project when added to other closely related past, present, and reasonable [sic] foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.” In addition to Project-specific impacts, this evaluation considered the Proposed Project's potential for incremental effects that are cumulatively considerable.

Although the Proposed Project has the potential to impact the environment, those potential impacts, in addition to being fully mitigated, are related to temporary construction.

Based on a search of the Nevada County website, there are several road projects near the Proposed Project area which occurred in the recent past, partially overlap and/or could be completed in the same

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timeframe (Nevada County 2024). Specifically, past, present and reasonably foreseeable future projects within or near the Proposed Project area include the following:

- Caltrans Hwy 20 Curve Removal Project in the upper watershed (2021–2023, with repairs in 2024).
- NID Fuel Load Management Actions around Scotts Flat Lake – These include tree removal and thinning in the vicinity of Scotts Flat Lake and Lower Scotts Flat Reservoir.
- Scotts Flat Lower Connector Trail (TBD) – This entails a trail to connect the northern and southern sides of Scotts Flat Reservoir via a connector trail and bridge below the dam and spillway.
- Parliament Trail System (2022–2025) – This trail system is located in the upper reaches of the watershed on the north side. The addition of this trail system may reduce the number of bikers on the Scotts Flat Trail and Scotts Flat Road by distributing trail users out further into the Harmony Ridge trail system.
- NID Scotts Flat Road Parking Lot (2023) – This parking area on Scotts Flat Road between the Scotts Flat Dam Campground (Gate 1) and Scotts Flat Main Gate Campground (Gate 2) was installed to accommodate the mountain biking traffic along Scotts Flat Road and Scotts Flat Trail (2024).
- Nevada County Consolidated Fire Department Parking and Picnic Area (2025) – This planned parking area is anticipated at the southwest corner of the intersection between Scotts Flat Road and Hwy 20. The intention is to accommodate trail users in the Harmony Ridge and Scotts Flat area.

These projects, when viewed in conjunction with the Proposed Project, could have temporary cumulative impacts related to aesthetics, air quality, hydrology and water quality, and noise. However, the Proposed Project construction time is minimal and phased over four years, and any projects in the area would require mitigation that would facilitate a further reduction in potential cumulative impacts. The Proposed Project impacts are not cumulatively considerable when viewed in connection with the effects of past, current, or probable future projects. The Proposed Project impacts are less-than-significant with incorporation of MMs discussed above.

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

Finding: Less-than-significant

As discussed, Project operation would not include uses that would result in substantial adverse effects on human beings. Potential impacts to human beings include increase in ambient noises, traffic control during construction, and increases in PM (dust) in the air during construction. These impacts are considered temporary and would be mitigated through incorporation of MMs and BMPs. Specifically, to the extent feasible, construction activities will be limited to daylight or normal working hours to mitigate disturbance from temporary increases in noise during construction. The Project's Mitigation Monitoring

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and Reporting program shall be followed to ensure compliance with the Project's MMs. Direct and indirect impacts to human beings would be less-than-significant with the implementation of MMs and BMPs discussed in this document.

3.21.2 Mitigation Measures

No additional mitigation is required.

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4.0 List of Preparers

The people listed below were principally responsible for the preparation of this IS/MND.

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References – Mandatory Findings of Significance
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5.0 References

Introduction and Project Description

Nevada County. 2024. My Neighborhood – Zoning. Available online:
<https://maps.nevadacountyca.gov/myneighborhood/>. Accessed July 2024.

Nevada County. 1996, as amended. Nevada County General Plan. Available online:
<https://www.nevadacountyca.gov/1065/General-Plan>. Accessed March 2024.

Aesthetics

Caltrans (California Department of Transportation). 2018. District 3 – Scenic Highway Program. Available online:
<https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>. Accessed September 2026.

Nevada County. 1996, as amended. Nevada County General Plan. Available online:
<https://www.nevadacountyca.gov/1065/General-Plan>. Accessed July 2024.

Agricultural and Forestry Resources

California Department of Conservation. 2022. Farmland Mapping & Monitoring Program. Available online:
<https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed October 2024.

California Department of Conservation. 2023. California Williamson Act Enrollment Finder. Available online: <https://maps.conservation.ca.gov/dlrp/WilliamsonAct/App/index.html>. Accessed October 2024.

Nevada County. 2014. Nevada County General Plan. Available online
<https://www.nevadacountyca.gov/1065/General-Plan>. Accessed September 2026.

Nevada County. 2015. Nevada County Zoning Boundaries and Designations: Western Nevada County, CA. Available online: <https://nevadacountyca.gov/DocumentCenter/View/13024/Western-Nevada-County-Zoning-Map-PDF>. Accessed September 2026.

Nevada County. 2026. Nevada County California. Zoning Maps. Available online:
<https://nevadacountyca.gov/720/Zoning-Maps>. Accessed September 2026.

Air Quality

CAPCOA. 2024. California Air Pollution Control Officers Association. California Emissions Estimator Model (CalEEMod). Version 2022.1.1.26. Available online: <https://www.caleemod.com/>. Accessed November 2024.

CARB. 2022. Area Designation Maps/State and National. Available online:
<https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations>. Accessed October 2024.

NSAQMD. 2024. GUIDELINES FOR ASSESSING AND MITIGATING AIR QUALITY IMPACTS OF LAND USE PROJECTS. Available online:

SCOTTS FLAT DAM SPILLWAY IMPROVEMENTS PROJECT

References – Mandatory Findings of Significance
October 2026

https://www.myairstdistrict.com/files/0b2be36cd/Land+Use+Guidelines_Final+Draft+August+2024.pdf. Accessed January 2025.

USGS. 2011. Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California. Available online: <https://pubs.usgs.gov/of/2011/1188/>. Accessed October 2024.

Biological Resources

Audubon 2026. National Audubon Society. Online Bird Guide: Guide to North American Birds. Available online: <https://www.audubon.org/bird-guide>. Accessed January 2026.

Bourque, R.M. 2008. Spatial Ecology of an Inland Population of the Foothill Yellow-Legged Frog (*Rana boylei*) in Tehama County, California. Master's Thesis, Humboldt State University, Arcata, CA.

Bulger, J. B., N. J. Scott, Jr., and R. Seymour. 2003. Terrestrial Activity and Conservation of Adult California Red-Legged Frogs *Rana aurora draytonii* in Coastal Forests and Grasslands. Biological Conservation 110:85–95. Available online: http://sccp.ca/sites/default/files/species-habitat/documents/terrest%20activity%20%26%20conservation%20of%20crlf%20in%20coastal%20forests%26%20grasslands_Bulger%20et%20al.%202003.pdf. Accessed January 2026.

Calflora. 2026. Information on Wild California Plants [web application]. The Calflora Database. Berkeley, California. Available online: <https://www.calflora.org/>. Accessed January 2026.

Catenazzi, A., and S.J. Kupferberg 2013. The Importance of Thermal Conditions to Recruitment Success in Stream-Breeding Frog Populations Distributed Across a Productivity Gradient. Biological Conservation 168:40-48.

CDFW 2019a. California Department of Fish and Wildlife. Areas of Conservation Emphasis (ACE). Available online: [https://wildlife.ca.gov/Data/Analysis/Ace#:~:text=Areas%20of%20Conservation%20Emphasis%20\(ACE\)%20is%20a%20CDFW%20effort%20to,connectivity%2C%20and%20climate%20change%20resiliency](https://wildlife.ca.gov/Data/Analysis/Ace#:~:text=Areas%20of%20Conservation%20Emphasis%20(ACE)%20is%20a%20CDFW%20effort%20to,connectivity%2C%20and%20climate%20change%20resiliency). Accessed August 2024.

CDFW 2019b. California Department of Fish and Wildlife. Report to the Fish and Game Commission. A Status Review of the Foothill Yellow-Legged Frog (*Rana boylei*) in California. September 20, 2019. Available online: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=174663&inline>. Accessed August 2024.

CDFW 2022. California Department of Fish and Wildlife. 2022 Aquatic Invasive Species Decontamination Protocol. Available online: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=43333>. Accessed September 2026.

CDFW 2023. California Department of Fish and Wildlife. Natural Community Conservation Planning (NCCP). California Natural Community Conservation Plans Map. Available online: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626&inline>. Accessed August 2024.

CDFW. 2025. Gray Wolf. Available online: <https://wildlife.ca.gov/Conservation/Mammals/Gray-Wolf#known-wolves>. Accessed November 2025.

SCOTTS FLAT DAM SPILLWAY IMPROVEMENTS PROJECT

References – Mandatory Findings of Significance
October 2026

- CDFW 2026a. California Department of Fish and Wildlife California Natural Diversity Database (CNDDDB) Maps and Data. RareFind Version 5 and CNDDDB in BIOS. California Department of Fish and Wildlife, Sacramento, California. Available online: <https://wildlife.ca.gov/Data/CNDDDB/Maps-and-Data#43018408-cnddb-in-bios>. Accessed January 2026.
- CDFW 2026b. California Department of Fish and Wildlife. California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California. Available online: <https://wildlife.ca.gov/conservation/planning/connectivity/CEHC>. Accessed January 2026.
- CDFW 2026c. California Department of Fish and Wildlife. ACE Dataset Fact Sheet. Terrestrial Connectivity. Accessed online: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=150835&inline>. Accessed January 2026.
- CDFW 2026d. California Department of Fish and Wildlife. Bald Eagles in California. Available online: <https://wildlife.ca.gov/Conservation/Birds/Bald-Eagle>. Accessed January 2026.
- CNPS 2026a. California Native Plant Society Inventory of Rare and Endangered Plants of California. California Native Plant Society. Inventory for the *Camptonville, Pike, Alleghany, Nevada City, North Bloomfield, Washington, Grass Valley, Chicago Park, and Dutch Flat, California* 7.5-minute USGS quadrangles between 2,000 and 4,000 ft (610 and 1,219 meters) amsl. Available online: <https://rareplants.cnps.org/Search/Advanced>. Accessed January 2026.
- _____. 2026b. California Native Plant Society, Rare Plant Program. Rare Plant Inventory (online edition, v-9.5). Available online: <https://www.cnps.org/rare-plants>. Accessed January 2026.
- CornellLab 2026. Cornell Lab of Ornithology. All About Birds. Cornell Lab of Ornithology, Ithaca, New York. Available online: <https://www.allaboutbirds.org>. Accessed August 2024.
- EPA 2024a. Environmental Protection Agency How's My Waterway? Online Mapper. Available online: <https://mywaterway.epa.gov/>. Accessed August 2024.
- EPA 2024b. How Wetlands are Defined and Identified under CWA Section 404. Available online: <https://www.epa.gov/cwa-404/how-wetlands-are-defined-and-identified-under-cwa-section-404#:~:text=%22Wetlands%20are%20areas%20that%20are,life%20in%20saturated%20soil%20conditions>. Accessed August 2024.
- Fellers, G. M., and P. M. Kleeman. 2007. California Red-Legged Frog (*Rana draytonii*) Movement and Habitat Use: Implications for Conservation. *Journal of Herpetology* 41(2):276–286. Available online: [http://www.elkhornsloughctp.org/uploads/files/1400892657%2349%20=%20Fellers%20%20Kleeman%202007%20CA%20red-legged%20frog%20\(Rana%20draytonii\)%20%20movement%20and%20habitat%20use.pdf](http://www.elkhornsloughctp.org/uploads/files/1400892657%2349%20=%20Fellers%20%20Kleeman%202007%20CA%20red-legged%20frog%20(Rana%20draytonii)%20%20movement%20and%20habitat%20use.pdf). Accessed January 2026.
- GANDA (Garcia and Associates) 2008. Identifying Microclimatic and Water Flow Triggers Associated with Breeding Activities of a Foothill Yellow-Legged Frog (*Rana boylei*) Population on the North Fork Feather River, California. California Energy Commission, PIER Energy-Related Environmental Research Program. CEC-500-2007-041.

SCOTTS FLAT DAM SPILLWAY IMPROVEMENTS PROJECT

References – Mandatory Findings of Significance
October 2026

- Gonsolin, T.T. 2010. Ecology of Foothill Yellow-legged Frogs in Upper Coyote Creek, Santa Clara County, CA. Master's Thesis. San Jose State University, San Jose, CA.
- Google Earth Pro. 2025. Google Earth Pro Version 7.3.6.10441. earth.google.com/web/. Imagery from 1985–2025. Accessed November 2025.
- Gutiérrez, R. J., and G. F. Barrowclough. 2005. Redefining the distributional boundaries of the northern and California spotted owls: implications for conservation. *The Condor* 107:182-187.
- Haggarty, M. 2006. Habitat Differentiation and Resource Use Among Different Age Classes of Post Metamorphic *Rana boylei* on Red Bank Creek, Tehama County, California. Master's Thesis. Humboldt State University, Arcata, CA.
- Hayes, M.P., and M.R. Jennings. 1988. Habitat Correlates of Distribution of the California Red-Legged Frog (*Rana aurora draytonii*) and the Foothill Yellow-Legged Frog (*Rana boylei*): Implications for Management. In *Proceedings of the Symposium on the Management of Amphibians, Reptiles, and Small Mammals in North America*, tech. ed. R. Sarzo, K.E. Severson, and D.R. Patton, 144–158. U.S. Forest Service General Technical Report RM-166.
- Kupferberg, S.J. 1996. Hydrologic and Geomorphic Factors Affecting Conservation of a River-Breeding Frog (*Rana boylei*). *Ecological Applications* 6(4):1322-1344.
- Mayer, Kenneth E., and William F. Laudenslayer, Jr. 1988. *A Guide to Wildlife Habitats of California*. State of California, Resource Agency, Department of Fish and Game, Sacramento, CA. Available online: <https://wildlife.ca.gov/Data/CWHR/Wildlife-Habitats>. Accessed August 2024.
- Nafis, Gary 2026. *California Herps - A Guide to the Amphibians and Reptiles of California*. Available online: <http://www.californiaherps.com>. Accessed January 2026.
- Nevada County 1995. General Plan, Wildlife and Vegetation. Available at: <https://www.nevadacountyca.gov/DocumentCenter/View/12585/Chapter-13-Wildlife-and-Vegetation-1995-PDF>. Accessed January 2026.
- Nevada County 2020. General Plan, Land Use Element. Available at: <https://www.nevadacountyca.gov/DocumentCenter/View/12573/Chapter-1-Land-Use-2020-PDF>. Accessed January 2026.
- NID 2018. Nevada Irrigation District. California Red-legged Frog Survey, Scotts Flat Reservoir Lower Plunge Pool Inspection Project. July 2018.
- NID 2021. Nevada Irrigation District. Initial Study/Mitigated Negative Declaration for the Scotts Flat Lower Connector Trail Project. Prepared for Nevada Irrigation District by Janelle Nolan & Associates. March 2021.
- Peek, R.A. 2010. Landscape Genetics of Foothill Yellow-legged Frogs (*Rana boylei*) in Regulated and Unregulated Rivers: Assessing Connectivity and Genetic Fragmentation. Master's Thesis. University of San Francisco, San Francisco, CA.
- Sawyer, John O., T. Keeler-Wolf, and J. Evans. 2009. *A Manual of California Vegetation*, Second edition. California Department of Fish and Game. California Native Plant Society. California Native Plant

SCOTTS FLAT DAM SPILLWAY IMPROVEMENTS PROJECT

References – Mandatory Findings of Significance
October 2026

- Society Press. Sacramento, CA. Available online: <https://vegetation.cnps.org/>. Accessed August 2024.
- Seltenrich, Craig P. and Alicia C. Pool. 2002. A Standardized Approach for Habitat Assessments and Visual Encounter Surveys for the Foothill Yellow-legged Frog (*Rana boylei*). Pacific Gas & Electric Company. San Ramon, California. Available online: <http://www.ycwa-relicensing.com/Technical%20References/03%20-%20Aquatic%20Resources/Amphibians%20and%20Reptiles/Seltenrich%20and%20Pool%2002%20FYLF%20Methods%20PGE.pdf>. Accessed January 2025.
- Stebbins, Robert C., and S.M. McGinnis. 2012. Field Guide to Amphibians and Reptiles of California. California Natural History Guides, University of California Press. Berkeley, California.
- University of California. 2025. California Fish Website. Fish Species. Central California Roach (*Lavinia symmetricus symmetricus*). Available online: <https://calfish.ucdavis.edu/species/?uid=24&ds=698>. Accessed January 2025.
- UC Davis. 2022. University of California, Davis. PISCES: California Fish Data and Management Software. Available online: <https://pisces.ucdavis.edu/fish-data>. Accessed August 2024.
- USFS 2026. U.S. Department of Agriculture, Forest Service. Monarch Butterfly Habitat Needs. Available online: https://www.fs.usda.gov/wildflowers/pollinators/Monarch_Butterfly/. Accessed January 2026.
- USFWS 2002. U.S. Fish and Wildlife Service. Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*). Region 1, U.S. Fish and Wildlife Service, Portland, Oregon. May 28, 2002. Available online: <https://www.nps.gov/goga/learn/management/upload/-1493-red-legged-frog-plan.pdf>. Accessed August 2024.
- USFWS 2006. U.S. Fish and Wildlife Service. Federal Register Vol. 71 No. 71 (19243–19346). Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the California Red-Legged Frog, and Special Rule Exemption Associated with Final Listing for Existing Routine Ranching Activities. Thursday, April 13, 2006. Available online: <https://www.govinfo.gov/content/pkg/FR-2006-04-13/pdf/06-3344.pdf>. Accessed August 2024.
- USFWS 2010. U.S. Fish and Wildlife Service. Federal Register Vol. 75, No. 51 (12816–12959). Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the California Red-legged Frog. March 17, 2010. Available online: <https://www.govinfo.gov/content/pkg/FR-2010-03-17/pdf/2010-4656.pdf>. Accessed August 2024.
- USFWS. 2017. California Spotted Owl (*Strix occidentalis occidentalis*). Conservation Objectives Report. U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office, Sacramento, CA. October 2017. Available online: <https://www.fws.gov/sites/default/files/documents/California-spotted-owl-conservation-objectives-report-final-2017-508.pdf>. Accessed August 2024.
- USFWS 2023a. Press Release: U.S. Fish and Wildlife Service proposes federal protections for both species of western pond turtle under the Endangered Species Act. Sep 29, 2023. Available: <https://www.fws.gov/press-release/2023-09/us-fish-and-wildlife-service-proposes-federal-protections-both-species>. Accessed August 2024.

SCOTTS FLAT DAM SPILLWAY IMPROVEMENTS PROJECT

References – Mandatory Findings of Significance
October 2026

- USFWS 2023b. U.S. Fish and Wildlife Service. Federal Register Vol. 88, No. 36 (11600–11639). Endangered and Threatened Wildlife and Plants; California Spotted Owl; Endangered Status for the Coastal Southern California Distinct Population Segment and Threatened Status With Section 4(d) Rule for the Sierra Nevada Distinct Population Segment. February 23, 2023. Available online: <https://www.govinfo.gov/content/pkg/FR-2023-02-23/pdf/2023-03526.pdf>. Accessed August 2024.
- USFWS 2026a. U.S. Fish and Wildlife Service Federally Proposed, Candidate, Threatened, and Endangered Species and Designated Habitat that have the potential to occur within two miles of the Project area. IPaC, Information for Planning and Conservation, Environmental Conservation Online System. Available online: <http://ecos.fws.gov/ipac>. Accessed January 2026.
- USFWS 2026b. U.S. Fish and Wildlife Service. Online Mapper: Critical Habitat for Threatened and Endangered Species data. Available online: <https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77>. Accessed January 2026.
- USFWS 2026c. National Wildlife Refuge System. Wildlife Corridors. Available online: <https://www.fws.gov/refuges/features/wildlife-corridors.html>. Accessed January 2026.
- USFWS 2026d. U.S. Fish and Wildlife Service. Eagle Management. Available online: <https://www.fws.gov/birds/management/managed-species/bald-and-golden-eagle-information.php>. Accessed January 2026.
- Van Wagner, T.J. 1996. Selected Life-History and Ecological Aspects of a Population of Foothill Yellow-legged Frogs (*Rana boylei*) from Clear Creek, Nevada County, California. Master's Thesis. California State University Chico, Chico, CA.
- Welsh, H.H., Jr., G.R. Hodgson, and A.J. Lind. 2005. Ecography of the Herpetofauna of a Northern California Watershed: Linking Species Patterns to Landscape Processes. *Ecography* 23:521-536.
- Welsh, H.H., Jr., and G.R. Hodgson. 2011. Spatial relationships in a dendritic network: the herpetofaunal metacommunity of the Mattole River catchment of northwest California. *Ecography* 34: 49-66.
- Wheeler, C.A., H.H. Welsh, Jr., and T. Roelofs. 2006. Oviposition Site Selection, Movement, and Spatial Ecology of the Foothill Yellow-legged Frog (*Rana boylei*). Final Report to the California Department of Fish and Game Contract No. P0385106, Sacramento, CA.
- Xerces Society 2026. Xerces Society for Invertebrate Conservation. Western Bumble Bee. (*Bombus occidentalis*). Available at: <https://xerces.org/endangered-species/species-profiles/at-risk-bumble-bees/western-bumble-bee>. Accessed August 2024.
- Yarnell, S.M. 2005. Spatial Heterogeneity of *Rana boylei* Habitat: Physical Properties, Quantification and Ecological Meaningfulness. PhD Dissertation. University of California, Davis.
- Zweifel, R.G. 1955. Ecology, Distribution, and Systematics of Frogs of the *Rana boylei* Group. University of California Publications in Zoology 54(4):207-292.
- Bezy, Bernadette 2024. Stantec Principal Biologist. Personal Communication, August 2024.

SCOTTS FLAT DAM SPILLWAY IMPROVEMENTS PROJECT

References – Mandatory Findings of Significance
October 2026

Cultural Resources

- Elston, R.G. 1971. A Contribution to Washo Archaeology, Nevada Archaeological Survey Research Paper, No. 2, Reno.
- Heizer, R.F., and Elsasser, A. B. 1953. *Some Archaeological Sites and Cultures of the Central Sierra Nevada* in The University of California Archaeological Survey, 1953 April 20.
- Meyer, J. and J. S. Rosenthal. 2008. A Geoarchaeological Overview and Assessment of Caltrans District 3: Cultural Resources Inventory of Caltrans District 3 Rural Conventional Highways.
- Stantec. 2017. Historic Resource Inventory and Evaluation Report for Nevada Irrigation District Combie Dam and Scotts Flat Dam, Spillway, and Valve House. Prepared for NID.

Energy

- National Highway Traffic Safety Administration. 2020. The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Year 2021-2026 Passenger Cars and Light Trucks Final Environmental Impact Statement. Available online:
https://www.nhtsa.gov/sites/nhtsa.gov/files/documents/safe_vehicles_rule_feis.pdf. Accessed July 2024.
- Nevada County 2019. NEVADA COUNTY ENERGY ACTION PLAN. Available online:
<https://nevadacountyca.gov/DocumentCenter/View/35183/Nevada-County-Energy-Action-Plan>. Accessed July 2024.

Geology and Soils

- California Geologic Survey (CGS). 2018. Faulting in California Map Sheet 54. Available online:
https://www.conservation.ca.gov/cgs/Documents/Publications/Map-Sheets/MS_054-2018-Faulting-in-California.pdf. Accessed September 2023.
- Department of Conservation [DOC]. 2022. California Geological Survey, Alquist-Priolo Earthquake Fault Zoning Map. Available online: <https://www.conservation.ca.gov/cgs/alquist-priolo>. Accessed October 2024.
- HDR Engineering, Inc. 2026. 100% Design Documentation Report. Scotts Flat Dam Spillway Improvements, Nevada Irrigation District. February 12, 2026.
- Natural Resources Conservation Service (NRCS). 2023. Web Soil Survey. Available online:
<https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>. Accessed September 2023.
- Nevada County. 1995. Nevada County General Plan Volume 2: Background Data and Analysis. Available online: <https://www.nevadacountyca.gov/DocumentCenter/View/12594/Volume-2-Background-Data-and-Analysis-PDF>. Accessed July 2024.

Greenhouse Gases

- CARB. 2023. California Greenhouse Gas Emissions from 2000 to 2021: Trends of Emissions and Other Indicators Available online: https://ww2.arb.ca.gov/sites/default/files/2023-12/2000_2021_ghg_inventory_trends.pdf. Accessed October 2024.

SCOTTS FLAT DAM SPILLWAY IMPROVEMENTS PROJECT

References – Mandatory Findings of Significance
October 2026

CARB. 2018. AB 32 Global Warming Solutions Act of 2006. Available online:
<https://ww2.arb.ca.gov/resources/fact-sheets/ab-32-global-warming-solutions-act-2006>. Accessed
October 2024.

Hazards and Hazardous Materials

CAL FIRE (California Department of Forestry and Fire Protection). 2024. Fire Hazard Severity Zones.
Available online: <https://calfire-forestry.maps.arcgis.com/apps/webappviewer/index.html?id=988d431a42b242b29d89597ab693d008>. Accessed July 2024.

DTSC (Department of Toxic Substances Control). 2024. EnviroStor Database. Available online:
<https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=nevada+city+>. Accessed July 2024.

RWQCB (Regional Water Quality Control Board). 2024. GeoTracker Database. Available online:
<https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=nevada+city>. Accessed
July 2024.

Hydrology and Water Quality

CVRWQCB. 1986. Sacramento Hydrologic Basin Planning Area – Map. Available online:
https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/bp_sac_hydro_map.pdf.
Accessed July 2024.

_____. 2019. The Water Quality Control Plan (Basin Plan) for the California Regional Water Quality
Control Board Central Valley Region Fifth Edition. Available Online:
https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201902.pdf.
Accessed July 2024.

FEMA (Federal Emergency Management Agency). 2010. FEMA's National Flood Hazard Layer (NFHL)
Viewer. Available online: <https://msc.fema.gov/portal/search>. Accessed July 2024.

Land Use and Planning

Nevada County. 1996, as amended. Nevada County General Plan. Available online:
<https://www.nevadacountyca.gov/1065/General-Plan>. Accessed March 2024.

Nevada County. 2024. My Neighborhood – Zoning. Available online:
<https://maps.nevadacountyca.gov/myneighborhood/>. Accessed July 2024.

Mineral Resources

Nevada County. 1996, as amended. Nevada County General Plan. Available online:
<https://www.nevadacountyca.gov/1065/General-Plan>. Accessed March 2024.

Noise

Nevada County. 1996, as amended. Nevada County General Plan. Available online:
<https://www.nevadacountyca.gov/1065/General-Plan>. Accessed March 2024.

SCOTTS FLAT DAM SPILLWAY IMPROVEMENTS PROJECT

References – Mandatory Findings of Significance
October 2026

FHWA (U.S. Department of Transportation Federal Highway Administration). 2024. Roadway Construction Noise Model. Available online: <https://www.fhwa.dot.gov/>. Accessed October 2024.

FTA (U.S. Department of Transportation Federal Transit Administration). 2018. Transit Noise and Vibration Impact Assessment Manual. Available online: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed July 2024.

Population / Housing

U.S. Census Bureau. 2023. Quick Facts – Nevada County, California. Available online: <https://www.census.gov/quickfacts/fact/table/nevadacountycalifornia/PST045223>. Accessed October 2024.

Public Services

Nevada County Consolidated Fire District. 2024. About Us. Available online: <https://www.nccfire.com/about-us>. Accessed October 2024.

Recreation

None

Transportation and Traffic

Nevada County. 1996, as amended. Nevada County General Plan. Available online: <https://www.nevadacountyca.gov/1065/General-Plan>. Accessed March 2024.

Tribal Cultural Resources

California Public Resources Code. Section 21080.3.1(b). Available online: https://leginfo.ca.gov/faces/codes_displaySection.xhtml?sectionNum=21080.3.1.&lawCode=PRC

Utilities and Service Systems

Nevada County. 1996, as amended. Nevada County General Plan. Available online: <https://www.nevadacountyca.gov/1065/General-Plan>. Accessed March 2024.

Nevada Irrigation District (NID). 2024. About Your Water. Available online: <https://www.nidwater.com/about-your-water>. Accessed October 2024.

Wildfire

CAL FIRE (California Department of Forestry and Fire Protection). 2024. Fire Hazard Severity Zones. Available online: <https://calfire-forestry.maps.arcgis.com/apps/webappviewer/index.html?id=988d431a42b242b29d89597ab693d008>. Accessed July 2024.

Nevada County Office of Emergency Services. 2024. DRAFT COMMUNITY WILDFIRE PROTECTION PLAN. Available online:

SCOTTS FLAT DAM SPILLWAY IMPROVEMENTS PROJECT

References – Mandatory Findings of Significance
October 2026

<https://nevadacountyca.gov/DocumentCenter/View/55496/NevadaCountyCWPPDraft>. Accessed January 2025.

Mandatory Findings of Significance

Nevada County. 2024. Capital Improvement Plan 2024 Annual Update. Available online:

<https://www.nevadacountyca.gov/DocumentCenter/View/26478/Annual-Capital-Improvement-Plan?bidId=>. Accessed September 2024.

APPENDIX A

CalEEMod Emission Estimates

ScottsFlat Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	ScottsFlat
Construction Start Date	4/1/2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.40
Precipitation (days)	56.8
Location	39.27488877015219, -120.93652419298753
County	Nevada
City	Unincorporated
Air District	Northern Sierra AQMD
Air Basin	Mountain Counties
TAZ	269
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Parking Lot	50.0	1000sqft	1.15	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.44	2.94	21.6	27.7	0.04	0.89	7.09	7.98	0.82	3.20	4.02	—	4,868	4,868	0.21	0.09	4.03	4,903
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.82	1.56	9.49	14.8	0.02	0.33	0.76	1.08	0.30	0.18	0.48	—	2,614	2,614	0.13	0.06	0.09	2,635
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.96	0.82	5.46	7.71	0.01	0.21	1.07	1.28	0.19	0.44	0.63	—	1,372	1,372	0.06	0.03	0.68	1,382
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.17	0.15	1.00	1.41	< 0.005	0.04	0.20	0.23	0.03	0.08	0.11	—	227	227	0.01	< 0.005	0.11	229

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.44	2.94	21.6	27.7	0.04	0.89	7.09	7.98	0.82	3.20	4.02	—	4,868	4,868	0.21	0.09	4.03	4,903

2026	1.76	1.52	8.97	14.8	0.02	0.29	0.76	1.05	0.27	0.18	0.45	—	2,666	2,666	0.12	0.06	3.45	2,690
2027	1.67	1.44	8.62	14.5	0.02	0.26	0.76	1.02	0.24	0.18	0.42	—	2,652	2,652	0.12	0.06	3.23	2,675
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.82	1.56	9.49	14.8	0.02	0.33	0.75	1.08	0.30	0.18	0.48	—	2,614	2,614	0.13	0.06	0.09	2,635
2026	1.72	1.47	9.09	14.4	0.02	0.29	0.76	1.05	0.27	0.18	0.45	—	2,608	2,608	0.13	0.06	0.09	2,628
2027	1.65	1.42	8.74	14.1	0.02	0.26	0.76	1.02	0.24	0.18	0.42	—	2,595	2,595	0.10	0.06	0.08	2,614
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.96	0.82	5.46	7.71	0.01	0.21	1.07	1.28	0.19	0.44	0.63	—	1,372	1,372	0.06	0.03	0.68	1,382
2026	0.73	0.62	3.79	6.02	0.01	0.12	0.31	0.43	0.11	0.07	0.19	—	1,098	1,098	0.05	0.02	0.62	1,107
2027	0.69	0.59	3.62	5.85	0.01	0.11	0.31	0.41	0.10	0.07	0.17	—	1,085	1,085	0.04	0.02	0.58	1,093
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.17	0.15	1.00	1.41	< 0.005	0.04	0.20	0.23	0.03	0.08	0.11	—	227	227	0.01	< 0.005	0.11	229
2026	0.13	0.11	0.69	1.10	< 0.005	0.02	0.06	0.08	0.02	0.01	0.03	—	182	182	0.01	< 0.005	0.10	183
2027	0.13	0.11	0.66	1.07	< 0.005	0.02	0.06	0.08	0.02	0.01	0.03	—	180	180	0.01	< 0.005	0.10	181

3. Construction Emissions Details

3.1. Phase 1, Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.56	1.31	12.1	12.1	0.02	0.56	—	0.56	0.52	—	0.52	—	2,065	2,065	0.08	0.02	—	2,072

Dust From Material Movement	—	—	—	—	—	—	6.26	6.26	—	3.00	3.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.16	1.46	1.46	< 0.005	0.07	—	0.07	0.06	—	0.06	—	249	249	0.01	< 0.005	—	250
Dust From Material Movement	—	—	—	—	—	—	0.76	0.76	—	0.36	0.36	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.27	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	41.2	41.2	< 0.005	< 0.005	—	41.3
Dust From Material Movement	—	—	—	—	—	—	0.14	0.14	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.39	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	60.8	60.8	< 0.005	< 0.005	0.26	61.9

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.09	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	69.0	69.0	< 0.005	0.01	0.15	72.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.89	6.89	< 0.005	< 0.005	0.01	7.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.32	8.32	< 0.005	< 0.005	0.01	8.72
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.14	1.14	< 0.005	< 0.005	< 0.005	1.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.38	1.38	< 0.005	< 0.005	< 0.005	1.44

3.3. Phase 2, Upper Spillway Chute Replacement (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	1.28	1.07	8.95	10.0	0.02	0.33	—	0.33	0.30	—	0.30	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	1.28	1.07	8.95	10.0	0.02	0.33	—	0.33	0.30	—	0.30	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	0.45	3.77	4.23	0.01	0.14	—	0.14	0.13	—	0.13	—	760	760	0.03	0.01	—	763
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.69	0.77	< 0.005	0.03	—	0.03	0.02	—	0.02	—	126	126	0.01	< 0.005	—	126
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.55	0.52	0.34	5.11	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	803	803	0.04	0.03	3.47	817
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.09	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	69.0	69.0	< 0.005	0.01	0.15	72.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.53	0.50	0.45	4.71	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	744	744	0.05	0.03	0.09	756
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.09	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	69.0	69.0	< 0.005	0.01	< 0.005	72.3
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.22	0.21	0.18	1.96	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	318	318	0.02	0.01	0.64	323
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	29.1	29.1	< 0.005	< 0.005	0.03	30.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.36	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	52.7	52.7	< 0.005	< 0.005	0.11	53.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.82	4.82	< 0.005	< 0.005	< 0.005	5.05

3.5. Phase 3, Lower Spillway Chute and Plunge Pool (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.22	1.01	8.57	9.96	0.02	0.29	—	0.29	0.27	—	0.27	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.22	1.01	8.57	9.96	0.02	0.29	—	0.29	0.27	—	0.27	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.51	0.43	3.59	4.17	0.01	0.12	—	0.12	0.11	—	0.11	—	755	755	0.03	0.01	—	758
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.66	0.76	< 0.005	0.02	—	0.02	0.02	—	0.02	—	125	125	0.01	< 0.005	—	125
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.54	0.50	0.31	4.83	0.00	0.00	0.74	0.74	0.00	0.17	0.17	—	798	798	0.04	0.03	3.31	812
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	67.5	67.5	< 0.005	0.01	0.14	70.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.50	0.46	0.43	4.45	0.00	0.00	0.74	0.74	0.00	0.17	0.17	—	740	740	0.05	0.03	0.09	750
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.09	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	67.5	67.5	< 0.005	0.01	< 0.005	70.7
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22	0.19	0.17	1.84	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	314	314	0.02	0.01	0.60	319
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	28.3	28.3	< 0.005	< 0.005	0.03	29.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.34	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	52.0	52.0	< 0.005	< 0.005	0.10	52.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.69	4.69	< 0.005	< 0.005	< 0.005	4.91
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3.7. Phase 4, Upper Plunge Pool Replacement and Site Restoration (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.17	0.97	8.25	9.91	0.02	0.26	—	0.26	0.24	—	0.24	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.17	0.97	8.25	9.91	0.02	0.26	—	0.26	0.24	—	0.24	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49	0.40	3.44	4.13	0.01	0.11	—	0.11	0.10	—	0.10	—	750	750	0.03	0.01	—	753
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.09	0.07	0.63	0.75	< 0.005	0.02	—	0.02	0.02	—	0.02	—	124	124	0.01	< 0.005	—	125
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.50	0.47	0.29	4.55	0.00	0.00	0.74	0.74	0.00	0.17	0.17	—	785	785	0.04	0.03	3.10	799
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	65.8	65.8	< 0.005	0.01	0.13	69.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.48	0.44	0.40	4.17	0.00	0.00	0.74	0.74	0.00	0.17	0.17	—	728	728	0.03	0.03	0.08	738
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.09	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	65.9	65.9	< 0.005	0.01	< 0.005	69.0
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.18	0.14	1.72	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	307	307	0.01	0.01	0.56	312
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	27.4	27.4	< 0.005	< 0.005	0.02	28.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.31	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	50.9	50.9	< 0.005	< 0.005	0.09	51.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.54	4.54	< 0.005	< 0.005	< 0.005	4.76

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Phase 1, Site Preparation	Site Preparation	4/1/2025	5/31/2025	5.00	44.0	—
Phase 2, Upper Spillway Chute Replacement	Building Construction	4/1/2025	10/31/2025	5.00	154	—
Phase 3, Lower Spillway Chute and Plunge Pool	Building Construction	4/1/2026	10/31/2026	5.00	153	—
Phase 4, Upper Plunge Pool Replacement and Site Restoration	Building Construction	4/1/2027	10/31/2027	5.00	152	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Phase 1, Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Phase 1, Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Phase 1, Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Phase 2, Upper Spillway Chute Replacement	Cranes	Diesel	Average	1.00	6.00	367	0.29

Phase 2, Upper Spillway Chute Replacement	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Phase 2, Upper Spillway Chute Replacement	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Phase 2, Upper Spillway Chute Replacement	Tractors/Loaders/Back hoes	Diesel	Average	1.00	6.00	84.0	0.37
Phase 2, Upper Spillway Chute Replacement	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Phase 3, Lower Spillway Chute and Plunge Pool	Cranes	Diesel	Average	1.00	6.00	367	0.29
Phase 3, Lower Spillway Chute and Plunge Pool	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Phase 3, Lower Spillway Chute and Plunge Pool	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Phase 3, Lower Spillway Chute and Plunge Pool	Tractors/Loaders/Back hoes	Diesel	Average	1.00	6.00	84.0	0.37
Phase 3, Lower Spillway Chute and Plunge Pool	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Phase 4, Upper Plunge Pool Replacement and Site Restoration	Cranes	Diesel	Average	1.00	6.00	367	0.29
Phase 4, Upper Plunge Pool Replacement and Site Restoration	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20

Phase 4, Upper Plunge Pool Replacement and Site Restoration	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Phase 4, Upper Plunge Pool Replacement and Site Restoration	Tractors/Loaders/Back hoes	Diesel	Average	1.00	6.00	84.0	0.37
Phase 4, Upper Plunge Pool Replacement and Site Restoration	Welders	Diesel	Average	3.00	8.00	46.0	0.45

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Phase 2, Upper Spillway Chute Replacement	—	—	—	—
Phase 2, Upper Spillway Chute Replacement	Worker	99.0	10.5	LDA,LDT1,LDT2
Phase 2, Upper Spillway Chute Replacement	Vendor	0.00	7.02	HHDT,MHDT
Phase 2, Upper Spillway Chute Replacement	Hauling	1.00	20.0	HHDT
Phase 2, Upper Spillway Chute Replacement	Onsite truck	—	—	HHDT
Phase 1, Site Preparation	—	—	—	—
Phase 1, Site Preparation	Worker	7.50	10.5	LDA,LDT1,LDT2
Phase 1, Site Preparation	Vendor	—	7.02	HHDT,MHDT
Phase 1, Site Preparation	Hauling	1.00	20.0	HHDT
Phase 1, Site Preparation	Onsite truck	—	—	HHDT
Phase 3, Lower Spillway Chute and Plunge Pool	—	—	—	—

Phase 3, Lower Spillway Chute and Plunge Pool	Worker	100	10.5	LDA,LDT1,LDT2
Phase 3, Lower Spillway Chute and Plunge Pool	Vendor	0.00	7.02	HHDT,MHDT
Phase 3, Lower Spillway Chute and Plunge Pool	Hauling	1.00	20.0	HHDT
Phase 3, Lower Spillway Chute and Plunge Pool	Onsite truck	—	—	HHDT
Phase 4, Upper Plunge Pool Replacement and Site Restoration	—	—	—	—
Phase 4, Upper Plunge Pool Replacement and Site Restoration	Worker	100	10.5	LDA,LDT1,LDT2
Phase 4, Upper Plunge Pool Replacement and Site Restoration	Vendor	0.00	7.02	HHDT,MHDT
Phase 4, Upper Plunge Pool Replacement and Site Restoration	Hauling	1.00	20.0	HHDT
Phase 4, Upper Plunge Pool Replacement and Site Restoration	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
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5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
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Phase 1, Site Preparation	0.00	0.00	34.5	0.00	—
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5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Parking Lot	1.15	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	204	0.03	< 0.005
2026	0.00	204	0.03	< 0.005
2027	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	31.1	annual days of extreme heat
Extreme Precipitation	28.9	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	62.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	5	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	5	1	1	4
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	80.0
AQ-PM	3.30
AQ-DPM	3.92
Drinking Water	11.8
Lead Risk Housing	12.7
Pesticides	0.34
Toxic Releases	1.96
Traffic	5.21
Effect Indicators	—
CleanUp Sites	95.7
Groundwater	0.00
Haz Waste Facilities/Generators	0.00
Impaired Water Bodies	83.0
Solid Waste	76.7
Sensitive Population	—
Asthma	33.0
Cardio-vascular	46.5
Low Birth Weights	19.3
Socioeconomic Factor Indicators	—
Education	32.2
Housing	6.57
Linguistic	1.81
Poverty	48.7
Unemployment	78.3

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	64.32696009
Employed	7.314256384
Median HI	60.43885538
Education	—
Bachelor's or higher	70.13986911
High school enrollment	100
Preschool enrollment	95.7141024
Transportation	—
Auto Access	94.58488387
Active commuting	41.16514821
Social	—
2-parent households	91.92865392
Voting	95.75259849
Neighborhood	—
Alcohol availability	93.67380983
Park access	27.48620557
Retail density	3.528807905
Supermarket access	10.11163865
Tree canopy	99.97433594
Housing	—
Homeownership	77.96740665
Housing habitability	83.15154626
Low-inc homeowner severe housing cost burden	46.93956114
Low-inc renter severe housing cost burden	67.22699859

Uncrowded housing	90.74810728
Health Outcomes	—
Insured adults	54.56178622
Arthritis	0.0
Asthma ER Admissions	51.2
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	79.0
Cognitively Disabled	38.1
Physically Disabled	34.8
Heart Attack ER Admissions	34.1
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	83.0
SLR Inundation Area	0.0

Children	94.0
Elderly	10.8
English Speaking	81.7
Foreign-born	3.7
Outdoor Workers	18.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	99.6
Traffic Density	5.9
Traffic Access	0.0
Other Indices	—
Hardship	35.8
Other Decision Support	—
2016 Voting	87.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	16.0
Healthy Places Index Score for Project Location (b)	76.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	construction anticipated to take place from early April to late October
Construction: Demolition	demolition assumptions to remove concrete, trees, and other debris from the site.
Construction: Trips and VMT	assumes up to one hauling trip per day to account for any debris, demolition, or vegetation removal. Up to 50 workers were assumed for Phases 2 through 4 to provide a conservative estimate of the number of potential workers per day. Based on the size of the project, the number of construction workers per day on average would likely be lower during Phases 2-4.
Construction: Dust From Material Movement	no soil removal or import anticipated

APPENDIX B

Records Search Results

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APPENDIX C

Native American Consultation

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APPENDIX D

Cultural Technical Report

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