Initial Study/Proposed Mitigated Negative Declaration

Alta Sierra Reservoir Replacement Project

Nevada Irrigation District
1036 West Main Street
Grass Valley, CA 95945

August 2018

Initial Study/Proposed Mitigated Negative Declaration

for the

Alta Sierra Reservoir Replacement Project

PREPARED FOR:

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August 2018

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ACRONYMS AND ABBREVIATIONS

BAAQMD	Bay Area Air Quality Management District
BMP	best management practice
CAAQS	California Ambient Air Quality Standard
Cal/OSH	California Occupational Safety and Health Administration
CalEEMod	California Emissions Estimator Model
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database
CO	carbon monoxide
CO_2	carbon dioxide
Cortese List	Hazardous Waste and Substances Sites List
CRHR	California Register of Historical Resources
dB	decibels
diesel PM	diesel particulate matter
DOC	California Department of Conservation
DTSC	California Department of Toxic Substances Control
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Administration
GHGs	greenhouse gases
IPCC	Intergovernmental Panel on Climate Change
lb/day	pounds per day
L_{eq}	equivalent continuous sound level
L_{max}	maximum sound level
MBTA	Migratory Bird Treaty Act
MCAB	Mountain Counties Air Basin
MG	million-gallon
MLD	Most Likely Descendant

MND	mitigated negative declaration
mph	miles per hour
MRZ	mineral resource zone
$MTCO_2e$/year	metric tons of carbon dioxide equivalent per year
NAAQS	national ambient air quality standards
NC	North Central Information Center
NCCFD	Nevada County Consolidated Fire District
NID	Nevada Irrigation District
NO_2	nitrogen dioxide
NO_X	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NSAQMD	Northern Sierra Air Quality Management District
O_3	ozone
PCAPCD	Placer County Air Pollution Control District
PM_{10}	respirable particulate matter
$PM_{2.5}$	fine particulate matter
PRC	Public Resources Code
Project	Alta Sierra Reservoir Replacement Project
PRUSD	Pleasant Ridge Union School District
ROG	reactive organic gases
SB	Senate Bill
SIP	State Implementation Plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SO_2	sulfur dioxide
SWPPP	stormwater pollution prevention plan
TACs	toxic air contaminants
TCR	tribal cultural resource
UCMP	University of California Museum of Paleontology
USFWS	U.S. Fish and Wildlife Service
VdB	vibration decibels
VMT	vehicle miles traveled
WTP	Water Treatment Plant

1 INTRODUCTION

1.1 INTRODUCTION AND REGULATORY GUIDANCE

This initial study has been prepared by the Nevada Irrigation District (NID) to evaluate potential environmental effects resulting from Alta Sierra Reservoir Replacement Project (project). Chapter 2, "Project Description," presents the detailed project information.

This document has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.). An initial study is prepared by a lead agency to determine if a project may have a significant effect on the environment (State CEQA Guidelines Section 15063[a]), and thus to determine the appropriate environmental document. In accordance with State CEQA Guidelines Section 15070, a "public agency shall prepare…a proposed negative declaration or mitigated negative declaration…when: (a) The initial study shows that there is no substantial evidence…that the project may have a significant impact on the environment, or (b) The initial study identifies potentially significant effects but revisions to the project plans or proposal are agreed to by the applicant and such revisions would reduce potentially significant effects to a less-than-significant level." In this circumstance, the lead agency prepares a written statement describing its reasons for concluding that the project would not have a significant effect on the environment and, therefore, does not require the preparation of an environmental impact report (EIR). By contrast, an EIR is required when the project may have a significant environmental impact that cannot clearly be reduced to a less-than-significant effect by adoption of mitigation or by revisions in the project design.

1.2 PURPOSE OF THIS DOCUMENT

CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects. A mitigated negative declaration (MND), which requires inclusion of an initial study, is a public document used by the decision-making lead agency to determine whether a project may have a significant adverse impact on the environment. If the agency finds that the proposed project may have a significant adverse impact on the environment, but that the impacts will be clearly reduced to a less-than-significant level through implementation of specific mitigation measures, an MND shall be prepared.

This initial study is a public information document that describes the proposed project, existing environmental setting in the project area, and potential environmental impacts of construction and operation of the proposed project. It is intended to inform the public and decision-makers of the proposed project's compliance with CEQA requirements.

1.3 REVIEW PROCESS

As described in the environmental checklist (Chapter 3), the project would not result in any unmitigated significant environmental impacts. Therefore, an MND is the appropriate document for compliance with the requirements of CEQA. The MND conforms to the content requirements of State CEQA Guidelines Section 15071.

Under CEQA, the lead agency is the public agency with primary responsibility over approval of the project. NID is the CEQA lead agency because it is responsible for approval of implementation and operation of the project. The purpose of this document is to present to decision-makers and the public information about the environmental consequences of implementing the project. This disclosure document is being made available to agencies and the public for review and comment. The initial study and proposed MND will be available for 30 days, from August 21, 2018 to September 19, 2018. A public meeting will be held for the project on Thursday, September 13, 2018, from 6:00 p.m. to 8:00 p.m., with the project presentation starting at 6:00 p.m. and discussion to follow, in the NID Board Room, 1036 W. Main Street, Grass Valley.

The IS/MND and supporting documentation referenced in this document is available for review at:

Nevada Irrigation District Business Center
1036 West Main Street
Grass Valley, CA 95945

Madelyn Helling Library
980 Helling Way
Nevada City, CA 95959

Comments should be addressed to:

Kris Stepanian
Board Secretary
Nevada Irrigation District
1036 West Main Street
Grass Valley, CA 95945
E-mail comments may be addressed to: stepaniank@nidwater.com

If you wish to send written comments (including via e-mail), they must be postmarked by September 19, 2018.

NID will conduct a public hearing to consider comments on the project's environmental document, certify the Draft IS/MND, and approve the proposed project on September 26, 2018 at 9:00 a.m. in the NID Board Room at 1036 W. Main Street Grass Valley.

1.4 SUMMARY OF FINDINGS

Chapter 3 of this document contains the analysis and discussion of potential environmental impacts of the project.

Based on the issues evaluated in that chapter, it was determined that the project would have either no impact or a less-than-significant impact related to most of the issue areas identified in the Environmental Checklist, included as Appendix G of the State CEQA Guidelines. These include the following issue areas:

- Aesthetics
- Air Quality
- Agriculture and Forest Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population/Housing
- Public Services
- Recreation
- Utilities/Service Systems
- Tribal Cultural Resources

Potentially significant impacts were identified for biological resources, cultural resources, hazards and hazardous materials, and transportation/traffic; however, mitigation measures included in the initial study would reduce all impacts to less-than-significant levels.

1.5 OTHER REQUIRED PERMITS AND APPROVALS

In addition to NID (lead agency) approval, the project would require a National Pollutant Discharge Elimination System (NPDES) permit for construction activities administered by the Central Valley Regional Water Quality Control Board.

1.6 DOCUMENT ORGANIZATION

This initial study is organized as follows:

Chapter 1: Introduction. This chapter introduces the environmental review process. It describes the purpose and organization of this document as well as presents a summary of findings.

Chapter 2: Project Description. This chapter describes the purpose of and need for the proposed project, identifies project objectives, and provides a detailed description of the project.

Chapter 3: Environmental Checklist. This chapter presents an analysis of a range of environmental issues identified in the CEQA Environmental Checklist and determines if project actions would result in no impact, a less-than-significant impact, a less-than-significant impact with mitigation incorporated, or a potentially significant impact. If any impacts were determined to be potentially significant, an EIR would be required. For this project, however, none of the impacts were determined to be significant after implementation of mitigation measures.

Chapter 4: References. This chapter lists the references used in preparation of this initial study.

Chapter 5: List of Preparers. This chapter identifies report preparers.

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2 PROJECT DESCRIPTION

2.1 INTRODUCTION

Nevada Irrigation District (NID) is proposing to remove and dispose of the existing Hypalon-lined Alta Sierra Reservoir and construct up to two new water storage tanks within the same footprint. This section includes a comprehensive description of the project, including project background, objectives, location, and characteristics.

2.2 PROJECT BACKGROUND AND NEED

The existing Alta Sierra Reservoir was constructed in 1976 and replaced the Alta Sierra Estates raw water storage reservoir originally constructed in 1965. The 3-million-gallon (MG) reservoir was constructed as a covered potable water storage reservoir with a Hypalon lining. Hypalon is a reinforced synthetic rubber material, which is formulated to resist bacterial growth and water treatment chemicals. In 1992, additional water service pipelines were installed to the site and connected to the reservoir as a part of the La Barr Meadows Road pipeline project. Some modifications and repairs to the Hypalon liner and inlet/outlet system were also made at that time. The Alta Sierra Reservoir Rehabilitation Project, implemented in 1996, included Hypalon repairs and a Hypalon surface water collection system. However, the Hypalon lining is continuing to deteriorate and is nearing the end of its useful life. Continued operation of the existing reservoir in its deteriorated condition would increase the risk of contamination of treated water resulting from leaks in the liner and would require increasing maintenance in the future.

2.3 PROJECT OBJECTIVES

The goal of the project is to replace the existing deteriorated facility with a new storage facility that achieves the following basic objectives:

- reduces risk of contamination related to deteriorated facilities,
- meets minimum flow requirements,
- meets storage volume requirements, and
- allows for maintenance and cleaning.

2.4 LOCATION

The project site is located east of Highway 49 near Grass Valley, California (Exhibit 2-1). The project site is a fenced site that is owned by NID. The site is bordered by Francis Drive to the north and private property to the east, west, and south. The primary site access is a private NID driveway off Francis Drive to the North of the site (Exhibit 2-2).

2.5 EXISTING FACILITIES

The Alta Sierra Reservoir is fed by the Osborne Tanks which receive water from the Loma Rica Water Treatment Plant (WTP). The Loma Rica system operates as a gravity fed cascading system to feed Alta Sierra. There is currently one covered raw water storage reservoir on the project site. This earthen Reservoir has a 3-MG capacity, an inlet/outlet system, and is lined and covered with Hypalon.

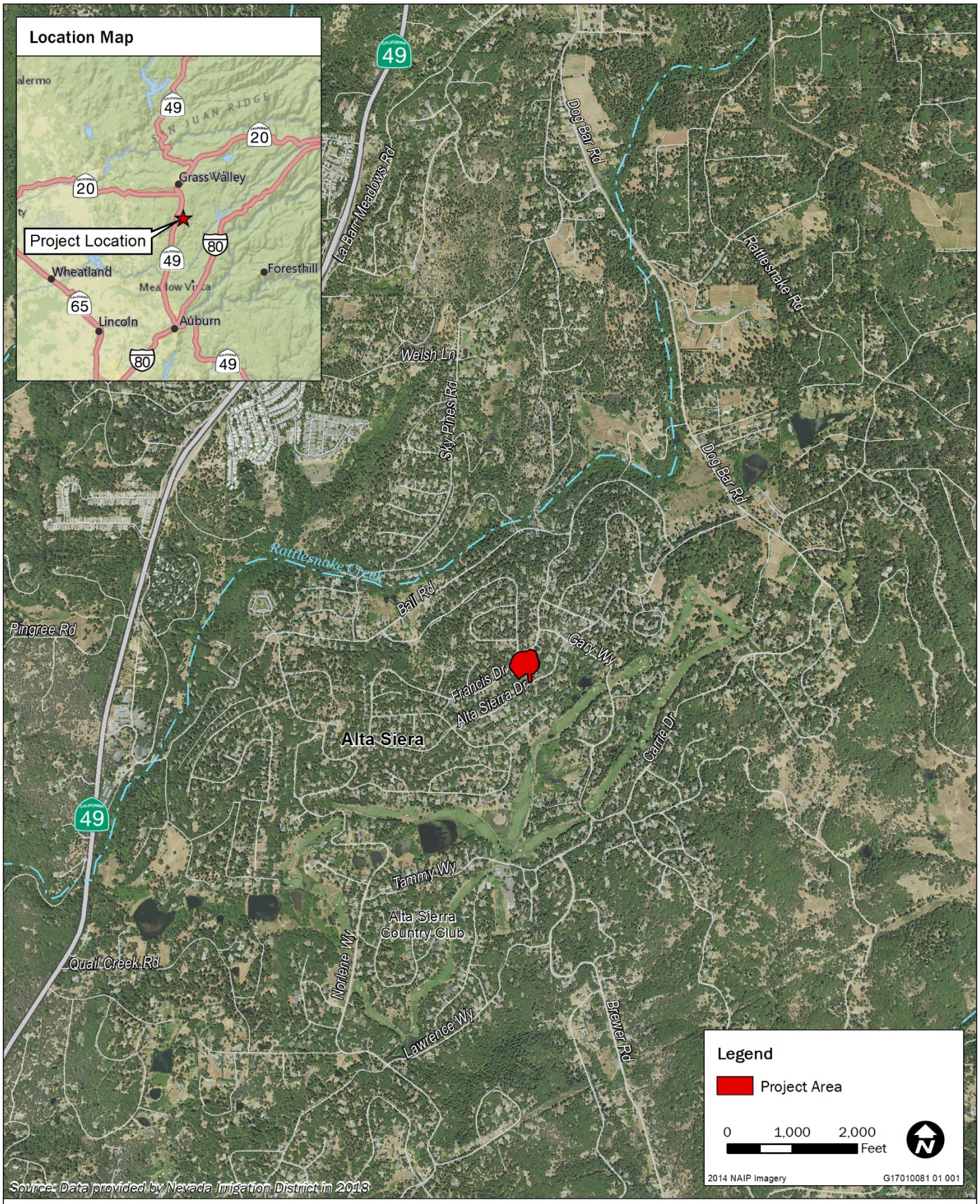


Exhibit 2-1 **Project Vicinity**

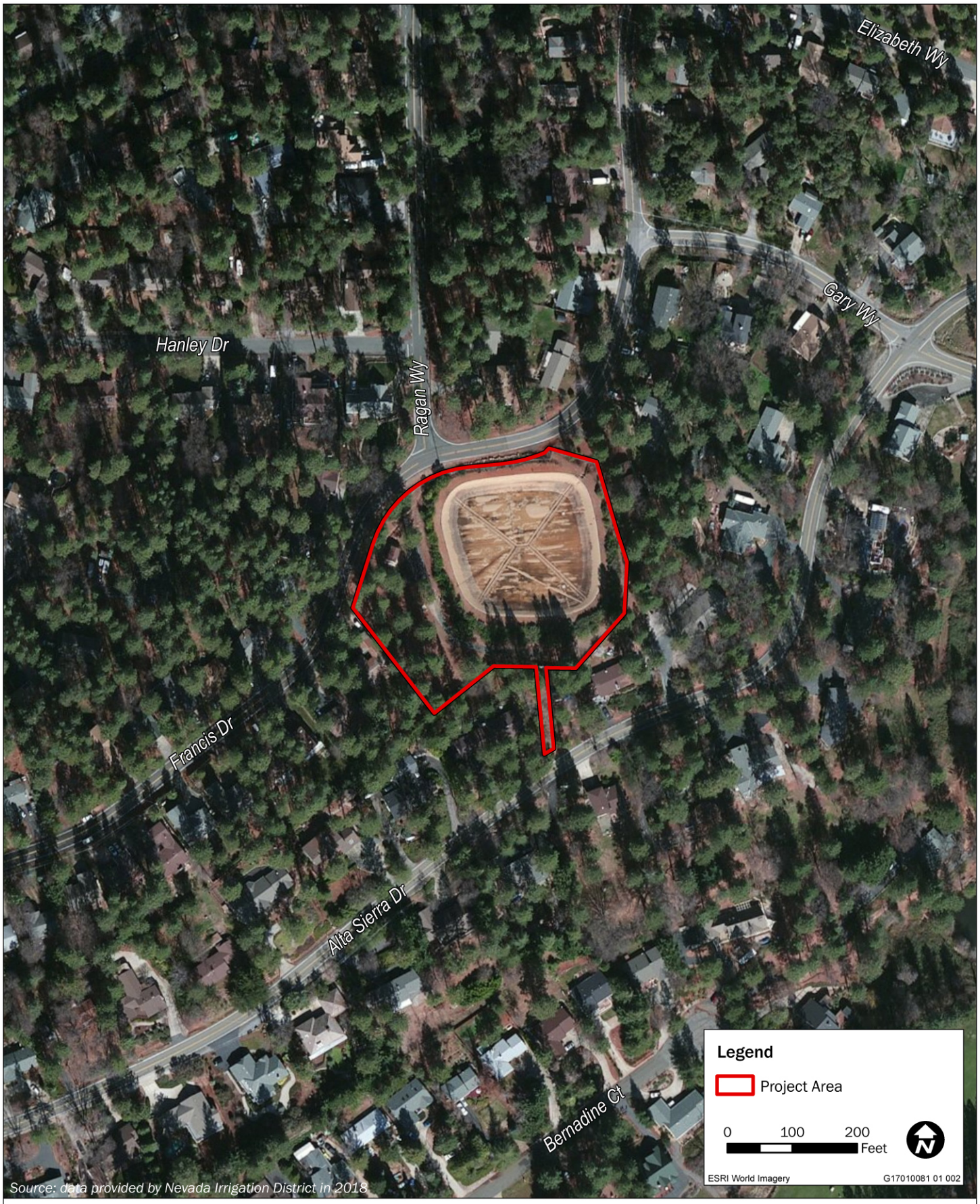


Exhibit 2-2 **Project Location**

Other facilities on-site include water service pipelines, a small building that houses control valves and a bypass system, and overflow system. The site is surrounded by a 6-foot-high chain-link fence with dark brown slats and barbed wire along the top, and there is minimal security lighting on-site. A berm surrounds the existing reservoir. There is vegetation on the berm and throughout the site. Vegetation consists primarily of manzanita (*Arctostaphylos* spp.) and pine trees (*Pinus* spp.). There is one paved access road within the site that provides access from Francis Drive. The site is not served by a stormdrain system, and runoff flows off the site naturally to the west into several culverts near Francis Drive.

2.6 DESCRIPTION OF PROPOSED PROJECT

2.6.1 Removal and Disposal of Existing Reservoir

The proposed project would include removal and disposal of the existing Hypalon liner of the existing reservoir. In addition, materials would be salvaged or recycled to the extent possible. Removal of the existing liner would be completed using standard heavy equipment such as excavators, backhoes, and dozers. The site would be graded as necessary to meet design requirements.

2.6.2 Proposed Tanks

Two new water storage tanks equipped with aeration blowers and mixers would be constructed within the footprint of the existing reservoir. Exhibit 2-3 shows one possible size and location configuration for the two tanks. The exact size, height, and configuration has not yet been determined and will be refined through the design or design-build process. The tanks would be sized so that each tank can be taken out of service periodically for cleaning and maintenance. The new tanks would be concrete that may be stained a neutral color to blend with the surrounding environment and would be covered. The roof of the tanks would be approximately 30 feet high, which would be approximately 14 feet above the berm. A third tank is not proposed to be constructed at this time, but the space will be reserved for it.

2.6.3 Site Modifications

The earthen berm surrounding the existing reservoir would be reconfigured for tank construction. Approximately 1.5 acres would be disturbed during project construction. The berm would be modified so it is located around the perimeter of the new tanks, reducing visibility of the new tanks from the surrounding neighborhood. Vegetation on the berm and several trees on-site would need to be removed. Vegetation to be removed would be primarily manzanita and pine trees. The site would be revegetated to the extent possible with native, drought-tolerant landscaping similar to existing vegetation.

The site would be graded to drain to the west into the existing culverts. Peak runoff from the project site following construction would not exceed existing runoff under conditions and impervious surfaces on the site would be similar or less than existing conditions. The project would also replace any deteriorating segments of fencing with an upgraded fence or similar type structure around the project site.

The project would include upgrades of the overflow system, control valve system, and installation of Supervisory Control and Data Acquisition. On-site piping would need to be modified to connect to the new tanks and blowers and mixers would be installed on the tanks. The existing building on-site would not be modified by the proposed project.

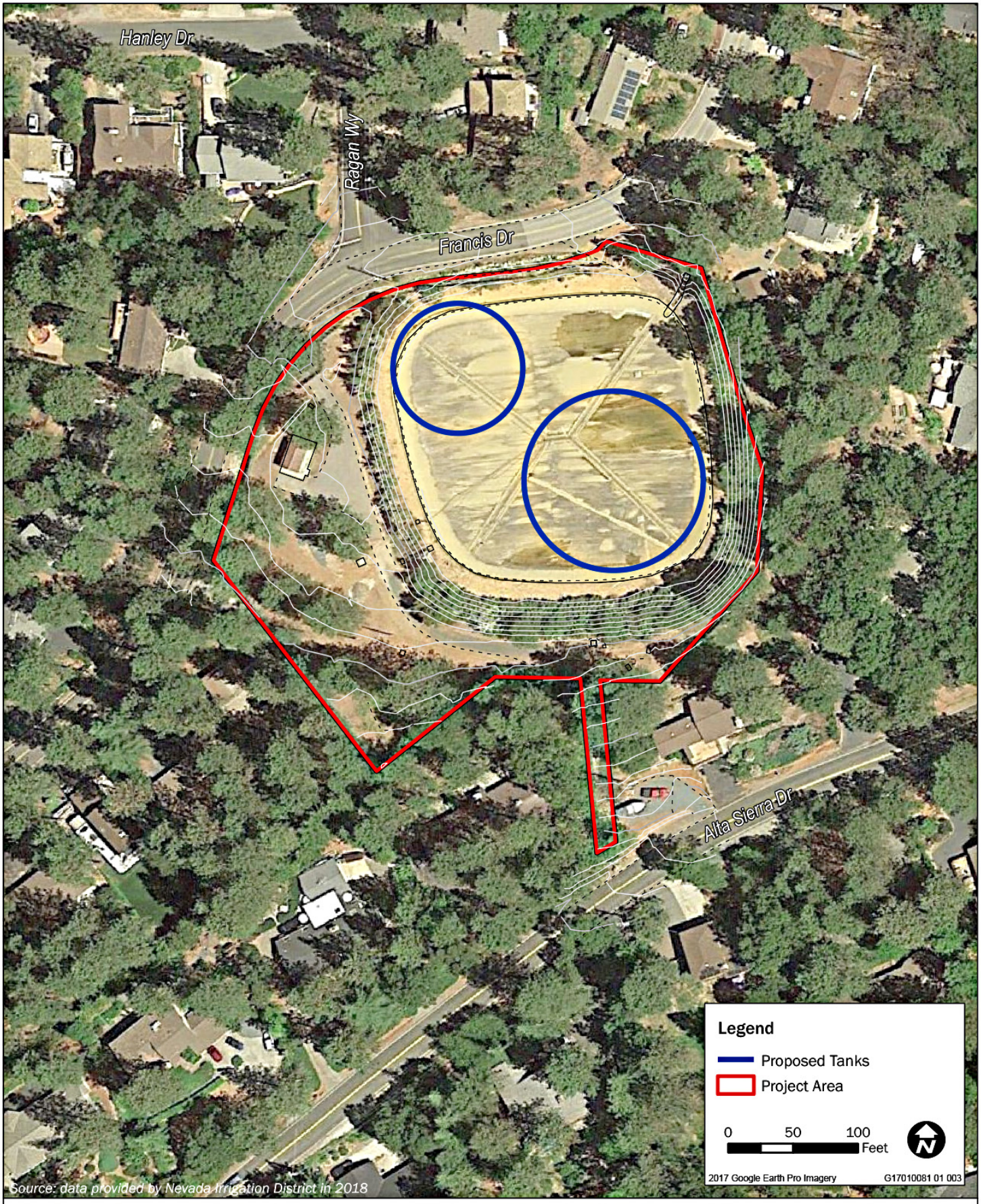


Exhibit 2-3 **Possible Size and Locations of Proposed Tanks within Project Site**

2.6.4 Design Guidelines

The project would be designed in conformance with current federal and state standards and would meet NID Standards. The new tanks would also meet American Water Works Association leakage rates for the tank type. All concrete and piping materials in contact with potable water will comply with NSF/ANSI 61: Drinking Water System Components standards. The aeration blowers and mixers on the new tanks would be new stationary noise sources. The model, location, and frequency of operation of the aeration blowers and mixers are not known at this time, so it is not possible to estimate post-project noise that might be generated from these features. However, NID will require the contractor(s) to implement noise-control measures (e.g., install muffling devices, fully enclosing mechanical equipment) to reduce noise generated by on-site stationary noise sources to levels protective of residents and the public. There would be no changes to lighting on-site. The project would not include any new buildings and there would be no changes to utilities services.

2.7 CONSTRUCTION

Project construction is expected to begin within 5 years of the CEQA approval and would take approximately 14 months. Construction would primarily be limited to the hours of 7:00 a.m. to 7:00 p.m., Monday through Saturday. Occasionally work on Sundays or evenings may be required. However, equipment would not be operated after 7:00 p.m. Construction activities during these hours are exempt from the County's noise standards (Nevada County Land Use Development Code, Chapter 11, Zoning Regulations, Section L-II 4.1.7, Noise). Equipment needed during construction would include an excavator, grader, crane, tank pre-stressing machine, and concrete trucks. Staging would be within disturbed areas on the project site. Approximately ten construction workers are expected to be on-site at any given time. In addition, approximately 450 haul trucks would be needed for hauling materials to and from the project site. Access for construction vehicles would be provided via Francis Drive.

2.8 OPERATION AND MAINTENANCE

Following construction, operation of the reservoir would be similar to existing conditions. There would be no increase in traffic related to operation of the reservoir.

3 ENVIRONMENTAL CHECKLIST

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

☐ Aesthetics	☐ Agriculture and Forest Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology / Soils
☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☐ Hydrology / Water Quality
☐ Land Use / Planning	☐ Mineral Resources	☐ Noise
☐ Population / Housing	☐ Public Services	☐ Recreation
☐ Transportation / Traffic	☐ Tribal Cultural Resources	☐ Utilities / Service Systems
☐ Mandatory Findings of Significance		☒ None with Mitigation

DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project could not have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.

☒ I find that although the proposed project COULD have a significant effect on the environment, there WILL NOT be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.

☐ I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

☐ I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature Date

William Morebeck
Nevada Irrigation District

Board President, Division 4

3.1 AESTHETICS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. Aesthetics. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

3.1.1 Environmental Setting

Aesthetic resources are generally defined as both the natural and built features of the landscape that contribute to the public's experience and appreciation of the landscape. Depending on the extent to which a project would negatively alter the perceived visual character and quality of the landscape, there may be impacts to aesthetic resources.

The project site is located within Alta Sierra, which is a residential community south of the City of Grass Valley. The project site is surrounded by residential housing within a moderately open-canopied ponderosa pine forest (Exhibit 3.1-1). Visual quality of the project site and surrounding area is generally urban, with a number of human-made encroachments including, overhead utility lines, roadways, and the deteriorating fence surrounding the project site. Structures on-site include an existing water storage reservoir that is covered with the deteriorating Hypalon liner (Exhibit 3.1-2). The reservoir is surrounded by a berm with a mix of ornamental and native landscaping, which provide a partial visual barrier around the reservoir. A small building that houses equipment is the only structure on-site. The rest of the site is developed, consisting of a paved road that runs along the western half of the reservoir, a small parking area west of the reservoir, and compacted bare ground outside the paved areas (Exhibit 3.1-3). The project site is surrounded with barbed-wire topped chain-link fencing that is deteriorating and has a number of missing slats. The area immediately surrounding the project site contains mature trees and shrubs that provide some visual screening from adjacent residences and roadways (Exhibit 3.1-4).

The project is bordered to the north by Francis Drive and Ragan Way and to the south by Alta Sierra Drive. Highway 49, which is eligible for listing as a State-designated scenic highway is approximately 1.2 miles west of the project site (Caltrans 2018). However, the project site is not visible from this highway because of intervening vegetation and topography. In addition, there are no scenic resources or scenic vistas located on the project site or with views of the project site.

There is currently minimal lighting used on the project site for security. There is also nighttime lighting from surrounding residences and roadways.

Exhibit 3.1-1 **Ponderosa Pine Forest within the Project Site**

Exhibit 3.1-2 **Hypalon Liner Covering Existing Reservoir**

Exhibit 3.1-3 **Developed Area within Project Site**

Exhibit 3.1-4 **Mature Trees and Fence along Perimeter of Project Site**

3.1.2 Discussion

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

No impact. A scenic vista is generally considered a view of an area that has remarkable scenery or a resource that is indigenous to the area. Although the site is visible from several residences and public viewpoints are available from the surrounding roadways (i.e., Francis Drive, Ragan Way), there are no scenic vistas in the project vicinity or with views of the project site. Because the proposed project would not adversely affect a scenic vista, there would be no impact.

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

No impact. The project may require the removal of several trees from the interior of the project site; however, the trees that would be removed are not deemed scenic resources and the large trees surrounding the site would not be affected by the project. In addition, the only eligible State-scenic highway in the project vicinity (Highway 49), does not have views of the project site. Therefore, the project would not damage any scenic resources within a state scenic highway. There would be no impact.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less-than-significant impact. Public viewpoints in the project vicinity that offer views of the project site include Francis Drive and Ragan Way. The project site is not visible from Alta Sierra Drive because of intervening topography, vegetation, and residences. The project site is also visible from residences along Francis Drive, adjacent to Ragan Way, and several that border the project site. The project would replace the existing reservoir with two above ground water storage tanks. During construction there would be a change in views of the project site from the surrounding viewpoints: construction equipment would be visible, as would activities related to removal of the Hypalon liner and construction of the new tanks, including grading, fugitive dust, and removal of some vegetation from the interior of the site. Construction activities could adversely affect views of the project site from one or more public viewpoints; however, construction would be temporary and would be partially screened by surrounding vegetation.

Following construction, changed visual elements would include two new concrete tanks, which would be taller than the existing reservoir and less mature vegetation within portions of the project site. The existing reservoir is primarily below grade and only the berm surrounding the existing reservoir is currently visible from off-site. The new tanks would be partially above ground and would be visible above the berm. The earthen berm surrounding the existing reservoir would be reconfigured, so it is located around the perimeter of the new tanks, reducing visibility of the tanks from the surrounding neighborhood. Grading of the site for construction would require removal of vegetation from the top of the berm and may require removal of other trees within the interior of the site. These changes in views are illustrated in Exhibits 3.1-5 and 3.1-6 that simulate the new tanks and vegetation immediately following construction from Francis Drive and Ragan Way. The plantings shown are immediately after construction and, therefore are not mature. Denser planting could occur with the idea as they mature they would be thinned. The viewpoints shown in Exhibits 3.1-5 and 3.1-6 were chosen to show the public viewpoints that would have the greatest change the visual environment as a result of the project. These viewpoints are also visible to several residences along Francis Drive and Ragan Way.

Existing View

Simulated View

Source: Prepared by Square One Productions in 2018

X17010081 01 004

Exhibit 3.1-5

Simulation of Water Tanks from Francis Drive, Looking Southwest toward the Project Site

Existing View

Simulated View

Source: Prepared by Square One Productions in 2018

X17010081 01 005

Exhibit 3.1-6 **Simulation of Water Tanks from Stop Sign at Ragan Way, Looking Southeast at the Project Site**

Exhibit 3.1-5 (top) shows existing views of the berm surrounding the reservoir from Francis Drive heading westbound, looking southwest toward the project site. Exhibit 3.1-5 (bottom) illustrates the change in views of the new water tanks, vegetation plantings, and replacement of damaged portions of the existing fence immediately following construction. The top of one of the tanks would be visible above the fence from this viewpoint; however, the fencing and undulating topography screen most of the tanks from this viewpoint. In addition, the tanks would be stained a neutral color such as light brown or green, which would make the concrete blend more easily with the surrounding environment. The project would include replanting of vegetation to replace the vegetation that would be removed, which would provide additional screening over time. This viewpoint is also visible to several residences along Francis Drive. However, the residences are set back from the roadway and there is intervening vegetation along the private property that provides additional screening from this viewpoint.

Exhibit 3.1-6 (top) shows existing views from the stop sign at Ragan Way and Francis Drive, looking southeast at the project site. Under existing conditions, the deteriorating fence, vegetation, and portions of the berm surrounding the reservoir are visible from this viewpoint. Motorists at the stop sign on Ragan Way would have the views that are the most direct and longest in duration. Therefore, this viewpoint provides the public viewpoint with the greatest change. This viewpoint is also visible to several residences on either side of Ragan Way. Exhibit 3.1-6 (bottom) simulates the new tanks, vegetation plantings, and new fencing immediately following construction from this viewpoint. Although the new fencing and vegetation plantings would partially screen the new tanks from this viewpoint and the neutral color of the tanks blends somewhat with the surrounding environment, the top portions of the tanks would be clearly visible above the fence. The change from this viewpoint would be slightly less visible to adjacent residences because the houses are set back from the roadway and there is intervening vegetation along the private property that provides additional screening from this viewpoint.

Although construction of the tanks would result in a noticeable change from this viewpoint, the existing visual quality of the area is low and already has a number of encroachments. In addition, the simulation shown in Exhibit 3.1-6 is immediately following construction, and the vegetation shown would provide more screening over time. Therefore, the project would not substantially degrade the visual character of the area. This impact would be less than significant.

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

Less-than-significant impact. There is minimal security lighting on-site currently. No new lighting is proposed as part of the project. The new water tanks would be constructed from concrete, which is non-reflective and would be stained in a neutral color to blend with the surrounding environment. Construction would primarily be limited to daytime hours; however, occasional work in the evenings may be required. Lights from equipment and vehicles working in the evenings would potentially be visible to surrounding residences. However, the use of lighting during construction would be limited and would be temporary. In addition, all lighting would be directed downward and away from residences. Therefore, this impact would be less than significant.

3.2 AGRICULTURE AND FOREST RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. Agriculture and Forest Resources.				
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.2.1 Environmental Setting

Farmlands are mapped by the State of California Department of Conservation (DOC) under the Farmland Mapping and Monitoring Program (FMMP). Under the FMMP, land is delineated into the following eight categories: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Grazing Land, Urban or Built-Up Land, Other Land, and Water. The area surrounding and including the project site is defined as Urban and Built-Up Land by the DOC (Exhibit 3.2-1). The project site is in a residential area, and there is no farmland in the project vicinity. In addition, the area surrounding the project site is not zoned for forest land or forestry resources.

Source: Data provided by Department of Conservation in 2017 for the year 2016 and Nevada Irrigation District in 2018

Exhibit 3.2-1 **FMMP Designations in the Project Vicinity**

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, enables local governments to enter into contracts with private landowners for the purpose of preserving agriculture and restricting unnecessary conversion to urban uses. Under the contract, landowners received reduced property tax assessments based on the property's value for farming and open spaces as opposed to full market value. Based on the DOC data base on Williamson Act lands, the project site is not under a Williamson Act contract (DOC 2016).

3.2.2 Discussion

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?

No impact. The project site is not considered Prime Farmland, Unique Farmland, or Farmland of Statewide Importance according to the FMMP. Implementation of the project would not convert farmland to non-agricultural uses. There would be no impact.

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

No impact. The project area is not subject to Williamson Act contract. Therefore, implementation of the project would not conflict with existing zoning for agricultural use or a Williamson Act contract. No impact would occur.

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

No impact. The existing zoning on the project site is not for forest land, timberland, or Timberland Production. The project would continue to be used by NID for water storage and the project would not cause rezoning of forest land. There would be no impact.

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

No impact. The project site is not considered forest land. While implementation of the project may require removal of several trees, the habitat is not riparian or oak woodland forest, and is not currently considered forest land. Therefore, the project would not convert forest land to non-forest uses. There would be no impact.

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

No impact. No forest or agricultural resources are located within or adjacent to the project area, and as discussed above in items a) through d), the project would not involve changes in the existing environment which, because of their location or nature, could result in conversion of forest land or agricultural land. Therefore, no impact would occur.

3.3 AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. Air Quality.				
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make the following determinations.				
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

3.3.1 Environmental Setting

The ambient concentrations of air pollutants are determined by the amount of emissions released by the sources of air pollutants and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and sunlight. Therefore, existing air quality conditions in an area are determined by such natural factors as topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources.

The project site is located near Grass Valley in Nevada County, within the Mountain Counties Air Basin (MCAB). MCAB includes Amador, Calaveras, El Dorado, Mariposa, Nevada, Placer, Plumas, Sierra, and Tuolumne Counties. The Northern Sierra Air Quality Management District (NSAQMD) is the local agency authorized to regulate air quality sources in Nevada County. The federal Clean Air Act and the California Clean Air Act mandate the control and reduction of specific air pollutants. Under these Acts, the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) have established ambient air quality standards for specific "criteria" pollutants, designed to protect public health and welfare. Criteria air pollutants include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), respirable particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), sulfur dioxide (SO_2), and lead. Ozone is not directly emitted into the air but is formed through complex chemical reactions between precursor emissions of reactive organic gases (ROG) and oxides of nitrogen (NO_X) in the presence of sunlight.

Nevada County is designated as nonattainment with respect to the California Ambient Air Quality Standard (CAAQS) for ozone and PM_{10}, and nonattainment with respect to the national ambient air quality standards (NAAQS) for ozone in Western Nevada County (CARB 2015; NSAQMD 2016).

NSAQMD prepared a federally enforceable State Implementation Plan (SIP) for western Nevada County in accordance with the Clean Air Act. The SIP is an air quality attainment plan which include various pollution control strategies to reduce emissions of ozone precursors. As part of its efforts to attain and maintain CAAQS and NAAQS, NSAQMD established recommended thresholds of significance for evaluating proposed projects, that include a mix of emission level tiers and different levels of mitigation required depending on which tier is exceeded. NSAQMD considers emissions of ROG and NO_X that exceed 24 pounds per day (lb/day) and emissions of PM_{10} that exceed 79 lb/day to be significant if basic emission reduction measures are not implemented (Level A thresholds). NSAQMD emission reduction measures include alternatives to open burning of vegetation and using grid power instead of diesel generators to power equipment (NSAQMD 2016:8, 9). NSAQMD has not established recommended mass emission thresholds for $PM_{2.5}$. NSAQMD considers the recommended mass emission thresholds to represent the allowable incremental contribution of project-related construction activity while still progressing towards overall attainment of the CAAQS and NAAQS in the MCAB (NSAQMD 2016).

In addition to the quantitative criteria pollutant and precursor thresholds identified above, NSAQMD considers a project to have a significant impact to air quality if it would:

- generate emissions of toxic air contaminants (TACs) that would expose sensitive receptors to an incremental increase in cancer risk that exceeds 10 in 1 million and/or a health hazard index greater than 1.0;
- contribute to localized concentrations of air pollutants at nearby receptors that would exceed applicable ambient air quality standards; or
- create objectional odors affecting a substantial number of people.

3.3.2 Discussion

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

Less-than-significant impact. The emission inventories used to develop a region's air quality attainment plans are based primarily on point source polluters and vehicle miles traveled (VMT) for the region, which are based, in part, on the planned growth identified in regional and community plans. Therefore, projects that would result in increases in population or employment growth beyond that projected in regional or community plans could result in increases in VMT above that planned in the attainment plan, further resulting in mobile-source emissions that could conflict with a region's air quality planning efforts. Increases in VMT beyond that projected in area plans generally would have a significant adverse incremental effect on the region's ability to attain or maintain the CAAQS and/or NAAQS.

The project includes removal and disposal of the existing Hypalon liner at the existing reservoir and construction of two new water storage tanks. The project would not result in new permanent employees or associated vehicle trips (e.g., employee trips). Operation of the project would include routine maintenance similar to what occurs under existing conditions and would not increase the VMT associated with operation of the water storage tanks. In addition, operation of the two new water tanks would not result in an increase in population or employment growth that would increase VMT.

Thus, implementation of the project would not conflict with or obstruct implementation of NSAQMD's air quality planning effort. This impact would be less than significant.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less-than-significant impact. The project would not result in an increase in long-term operational emissions because the removal and disposal of the existing Hypalon liner and construction of two new water storage tanks would not introduce new emissions sources to the MCAB or an increased level of vehicle activity. Emissions would, however, be generated during project construction. Construction emissions would be short-term and would include site preparation, grading the site for the new tanks, and hauling of the Hypalon liner off-site. Construction is expected to begin within 5 years of the CEQA approval and would take approximately 14 months to complete. Construction would primarily be limited to the hours of 7:00 a.m. to 7:00 p.m., Monday through Saturday. Occasionally work on Sundays or evenings may be required. However, noise-generating equipment would not be operated after 7:00 p.m. Approximately 10 workers would be on-site during construction per day, and there would be up to 450 total deliveries for materials. Equipment that may be needed during construction would include an excavator, grader, pumper truck, concrete trucks, crane, and tank pre-stressing machine. The new tanks would be constructed from pre-stained concrete; therefore, no coating operations would occur onsite. Staging would be within disturbed areas on the project site.

Emissions of ROG and NO_X would be primarily associated with exhaust generated (e.g., gas and diesel) by off-road construction equipment, truck trips used to deliver materials, and passenger vehicles used for commuting. Fugitive PM_{10} and $PM_{2.5}$ dust emissions would be associated primarily with ground-disturbance activities during excavation and site preparation and would vary as a function of such parameters as soil silt content, soil moisture, wind speed, size of disturbance area, and the amount of vehicle travel across paved and unpaved surfaces. Exhaust emissions from diesel equipment, haul truck trips, and worker commute trips would also contain nominal levels of PM_{10} and $PM_{2.5}$.

Construction emissions of criteria air pollutants and precursors were modeled using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 computer program (California Air Pollution Control Officers Association [CAPCOA] 2017). Modeling was based on project-specific information (e.g., size, construction phasing, area to be graded, area to be paved) where available; reasonable assumptions based on typical construction activities; and default values in CalEEMod that are based on the project's location.

Table 3.3-1 summarizes the modeled construction-related emissions of criteria air pollutants and precursors for the project. Refer to Appendix A for detailed modeling input parameters and results.

Table 3.3-1 Summary of Construction-Generated Emissions of Criteria Air Pollutants and Precursors

Year	Maximum Daily Emissions (lb/day)			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
2019	2	23	7	4
2020	2	15	<1	<1
NSAQMD Thresholds of Significance [1]	*< 24*	*< 24*	*< 79*	*N/A*

Notes: lb/day = pounds per day; N/A = not applicable; NO_X = oxides of nitrogen; NSAQMD = Northern Sierra Air Quality Management District; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter; ROG = reactive organic gases

[1] NSAQMD has not established mass emission thresholds of significance for $PM_{2.5}$ but estimates are shown for informational purposes.

Source: Emission calculations conducted by Ascent Environmental in 2018

As shown in Table 3.3-1, construction-generated emissions of ROG, NO_X, and PM_{10} would not exceed the Level A thresholds of significance recommended by NSAQMD. The project would implement the following "mitigation for significance Level A thresholds" in accordance NSAQMD requirements to minimize construction emissions:

- Alternatives to open burning of vegetative material shall be used unless otherwise deemed infeasible by the District. Among suitable alternatives are chipping, mulching, or conversion to biomass fuel.

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

Furthermore, projects disturbing more than 1 acre for clearing or grading are required to prepare and implement a Dust Control Plan. The project would submit and implement the approved Dust Control Plan in accordance with NSAQMD requirements, and consistent with the stormwater pollution prevention plan prepared (SWPPP) for the project, to minimize construction fugitive dust emissions:

- All material excavated, stockpiled, or graded shall be sufficiently watered, treated, or covered to prevent fugitive dust from leaving the property boundaries and/or causing a public nuisance. Watering during the summer months shall occur at least twice daily, with complete coverage of disturbed areas.
- All areas with vehicle traffic shall be watered or have dust palliative applied as necessary to minimize dust emissions.
- All on-site vehicle traffic shall be limited to a speed of 15 miles per hour (mph) on unpaved roads.
- All land clearing, grading, earth moving, or excavation activities on a project shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 mph.
- Paved streets adjacent to the project shall be swept or washed at the end of each day, or more frequently if necessary, to remove excessive accumulations or visibly raised areas of soil which may have resulted from activities at the project site.
- Prior to project completion, the applicant shall re-establish ground cover on the site through seeding, gravel, and/or wood chips to conform to pre-existing conditions consistent with the SWPPP prepared for the project.

The project's construction-related emissions would be below NSAQMD's Level A thresholds and the project would implement reduction measures required by NSAQMD. Thus, the emissions of criteria air pollutants and precursors generated by project construction would not contribute to the non-attainment status of any criteria air pollutants with respect to the NAAQS and CAAQS. As a result, this impact would be less than significant.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less-than-significant impact. As discussed under item b) above, the project would not result in an increase in long-term operational emissions because the project would not introduce new emission sources to the MCAB or an increased level of vehicle activity. Nevada County is designated as nonattainment with respect to CAAQS for ozone and PM_{10}, and nonattainment with respect to NAAQS for ozone in Western Nevada County (CARB 2015; NSAQMD 2016). Past, present, and future development projects contribute to the adverse air quality in the MCAB on a cumulative basis. By its very nature, air pollution throughout the NSAQMD is a cumulative impact. A project's individual emissions can contribute to existing cumulatively significant adverse air quality impacts. As shown under item b) above, construction-generated emissions of ROG, NO_X, and PM_{10} would not exceed the thresholds of significance recommended by NSAQMD and are temporary emission sources. Thus, the emissions of criteria air pollutants and precursors generated by project construction would not contribute to the nonattainment status of Nevada County for any criteria air pollutants. As a result, project-generated emissions of criteria air pollutants and precursors would not be cumulatively considerable. This would be a less-than-significant impact.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less-than-significant impact. The closest sensitive receptor to the project area is a residence located approximately 30 feet to the south. As discussed in item b) above, the project would not result in regional (e.g., ROG, NO_X, PM_{10}) emissions of criteria air pollutant or precursors that would exceed applicable NSAQMD-recommended thresholds of significance. Construction activities would be temporary, therefore, associated emissions would cease at completion of construction. Thus, project-generated emissions of criteria air pollutant and precursors would not expose sensitive receptors to substantial pollutant concentrations of criteria air pollutants.

Construction-related activities would result in temporary, short-term project-generated emissions of diesel particulate matter (diesel PM) from the exhaust of off-road, heavy-duty diesel equipment for site preparation and excavation. Particulate exhaust from diesel-fueled engines (i.e., diesel PM) was identified as a TAC by the CARB in 1998. As a TAC, diesel PM is an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. The potential cancer risk from the inhalation of diesel PM outweighs the potential for all other health impacts (CARB 2003). Based on the construction emission estimates, maximum daily exhaust emissions of PM_{10}, considered a surrogate for diesel PM, would be 1 lb/day during construction. Considering the highly dispersive properties of diesel PM (Zhu et al. 2002:1032), the relatively low level of diesel PM emissions that would be generated during project construction, and the relatively short duration of construction activities, construction-related TAC emissions would not expose sensitive receptors to an incremental increase in cancer risk that exceeds 10 in 1 million or a hazard index greater than 1.0. No new operational-related TAC emissions would occur, and the project would not expose sensitive receptors to an incremental increase in cancer risk. Thus, this impact would be less than significant.

e) Create objectionable odors affecting a substantial number of people?

Less-than-significant impact. The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the presence of sensitive receptors. Although offensive odors rarely cause physical harm, they may still be very unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies.

The project would not involve the development or relocation of any sensitive receptors in proximity to an existing odor source. Also, the project would not introduce any major odor sources (e.g., wastewater treatment facilities, landfills, composting facilities). Removal and disposal of the existing Hypalon liner and construction of two new water storage tanks would not introduce new, permanent sources of objectionable odors. Also, the project would not emit odors that could impact considerable number of persons, leading to a public nuisance.

During construction, the operation of diesel-powered vehicles and heavy-duty equipment may generate temporary, localized odors from equipment exhausts. However, such emissions would be short-term and would dissipate rapidly with increasing distance from the source. This impact would be less than significant.

3.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. Biological Resources. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☐	☐	☒
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

3.4.1 Environmental Setting

The 2.74-acre project site is situated within the Alta Sierra residential community, south of the City of Grass Valley, California. The project site is surrounded by residential housing within a moderately open-canopied ponderosa pine forest. The existing reservoir has a flat, Hypalon cover and is surrounded by a berm. Along the berm is a mix of ornamental and native landscaping, which provides a visual barrier around the liner. Open-canopied ponderosa pine forest occurs in the western portion of the project site. The rest of the site is developed, consisting of a paved road that runs along the western half of the tank, a small parking area west of the tank, and compacted bare ground outside the paved areas. There is a small building west of the tank that houses equipment. The project site is surrounded with barbed-wire topped chain-link fencing.

The ponderosa pine vegetation community in the western portion of the project site consists of ponderosa pine (*Pinus ponderosa*) trees with a compacted, bare ground understory. Ornamental and native landscaping on the berm surrounding the water tank consists of Pacific madrone (*Arbutus menziesii*), interior live oak

(*Quercus wislizeni*), black oak (*Quercus kelloggii*), and whiteleaf manzanita (*Arctostaphylus viscida*) in the tree layer, firethorn (*Pyracantha* sp.) in the shrub layer, and invasive nonnative forbs and grasses, including purple star thistle (*Centaurea calcitrapa*), tall sock-destroyer (*Torilis arvensis*), rose clover (*Trifolium hirtum*), and bristly dog-tail grass (*Cynosurus echinatus*) in the understory (Exhibit 3.4-1).

The project site was previously graded for the reservoir and surrounding berm with an elevation range of 2,345 to 2,410 feet above mean sea level. Soil underlying the project site consists of Sites very stony loam, 2 to 15 percent slopes, which is a primarily cobbly loam and cobbly clay loam soil that is well drained.

A shallow stormwater drainage is present along a portion of the northern boundary of the project site (Exhibit 3.4-1). This drainage was excavated in upland to convey stormwater under the driveway entrance off-site, and along Francis Drive. The drainage channel is primarily bare soil with some weeds growing sporadically throughout, except for where the drainage is lined with concrete under the driveway.

In general, the project site provides low value habitat for most wildlife species because of the lack of vegetative cover and a high level of disturbance from the surrounding residential community and ongoing maintenance activities on the project site. Common wildlife species that are likely to be associated with the disturbed habitats present on or immediately adjacent to the project site are species adapted to disturbed or residential environments, such as western fence lizard (*Sceloporus occidentalis*), American robin (*Turdus migratorius*), American crow (*Corvus branchyrhychos*), house finch (*Carpodacus mexicanus*), steller's jay (*Cyanocitta stelleri*), and raccoon (*Procyon lotor*), and mule deer (*Odocoileus hemionus*). Small mammals, such as Botta's pocket gopher (*Thomomys bottae*) and western harvest mouse (*Reithrodontomys megalotis*) may also be present and provide prey for a variety of raptor species likely to hunt in the area, including American kestrel (*Falco sparverius*), barn owl (*Tyto alba*), and red-tailed hawk (*Buteo jamaicensis*). The ponderosa pines on the project site could provide nesting habitat for common raptors in the area and the trees and shrubs around the tank could provide nesting habitat for common resident and migratory birds.

Special-Status Species

A list of special-status species that could potentially occur on the project site or immediate vicinity, provided suitable habitat conditions were present, was developed primarily through review of biological resource databases, including California Natural Diversity Database (CNDDB) (2018) and CNPS Inventory (2018) records of previously documented occurrences of special-status species in the Grass Valley, Nevada City, North Bloomfield, Chicago Park, Colfax, Lake Combie, Wolf, Rough and Ready, and French Corral U.S. Geological Survey 7.5-minute quadrangles. The project site is located on the Grass Valley quadrangle. A list of threatened and endangered species that may occur on or be affected by projects in the general project area was also obtained from the U.S. Fish and Wildlife Service (USFWS) Information, Planning, and Consultation (IPaC) tool (USFWS 2018). The *Nevada County General Plan Environmental Impact Report* (EIR) (County of Nevada 1995) was also reviewed for information about special-status species known to occur in the region.

Special-Status Plants

The Nevada County General Plan Final EIR identifies seven special-status plant species as occurring in Nevada County and searches of the CNPS, CNDDB, and IPaC databases identified 15 special-status plant species as having been documented or having the potential to occur in the project region. Most of these species are either restricted to specific soil types, such as serpentine or gabbroic soils, or restricted to specific habitats (e.g. chaparral, cismontane, marshes, swamps, bogs, fens, meadows seeps, and vernal pools) that are not found on the project site. Because the entire project site is within a residential housing community and the site is developed or has been altered by human activities, there is no potential habitat for special-status plant species.

Exhibit 3.4-1 **Habitat Types within the Project Site**

Special-Status Wildlife

The *Nevada County General Plan* EIR identifies nine special-status wildlife species as occurring in Nevada County and six additional wildlife species are documented in the CNDDB and IPaC as occurring or having potential to occur in the project region. Most of these species were eliminated from further evaluation because they are restricted to particular habitat types (e.g. riparian woodland, chaparral, coastal scrub, cismontane woodland, upper montane forest, alpine, pinyon and juniper woodlands, freshwater marsh, wet meadows, wetlands, streams, and rivers) that are not present on or adjacent to the project site or because the project site is outside of the species known geographic range. The remaining special-status wildlife species that are associated with ponderosa pine habitat are evaluated further in Table 3.4-1.

Table 3.4-1 Special-Status Wildlife with Potential to Occur in the Project Vicinity

Species	Listing Status[1,2]		Habitat	Potential for Occurrence on the Project Site[2]
	Federal	State		
Birds				
Northern goshawk *Accipiter gentilis*	–	SC	In the Sierra Nevada, this species generally requires mature conifer forests with large trees, snags, downed logs, dense canopy cover, and open understories for nesting; aspen stands also are used for nesting. Foraging habitat includes forests with dense to moderately open overstories and open understories interspersed with meadows, brush patches, riparian areas, or other natural or artificial openings. Goshawks reuse old nest structures and maintain alternate nest sites.	***Not likely to occur.*** The project site is characterized by limited and relatively open forest canopy and is subject to high levels of human disturbance related to surrounding residential development, the presence of roads surrounding the site, and maintenance activities on-site. This species prefers dense, mature forests with complex understory features, which are not present on or in the vicinity of the project site.
Mammals				
Townsend's big-eared bat *Corynorhinus townsendii*	–	SC	Range throughout California, mostly in mesic habitats. Limited by available roost sites (i.e., caves, tunnels, mines, and buildings).	***Not likely to occur.*** There is a small building on the project site that houses equipment for the reservoir that could provide roosting habitat for this species. However, it is unlikely bats would roost under the eaves or inside the building because there is a high level routine human activity in and around the building, which includes regular visits from maintenance personnel.
Fisher - West Coast DPS *Pekania pennanti*	FC	SC	Forested habitats below 8,500 feet elevation, with fairly dense canopies and large trees, snags, and down logs. Inhabits stands of pine, Douglas fir, and true fir in northwestern California and Cascade-Sierra ranges. Fishers are considered extirpated throughout much of the Central and Northern Sierra Nevada (Zielinski, Kucera, and Ba 1995).	***Not likely to occur.*** While ponderosa pine forest is present on the project site, this species prefers dense, mature forests with complex understory features, which are not present on or in the vicinity of the project site. Also, fishers are very rare in the region and not likely to occur in a residential community where human disturbance is prevalent.

Notes: CNDDB = California Natural Diversity Database; USFWS = U.S. Fish and Wildlife Service

[1] Legal Status Definitions

Federal:
FC Candidate for Listing under FESA

State:
SC Species of special concern (no formal protection other than CEQA consideration)

Source: CNDDB 2018, USFWS 2018, Nevada County 1995

3.4.2 Discussion

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

No impact. The project site is characterized by limited and open ponderosa pine forest canopy with a barren, compacted understory near the western boundary is otherwise developed or landscaped. The area is also subject to high levels of human disturbance related to the surrounding residential community and ongoing maintenance related to the operation and maintenance of the reservoir. Therefore, as shown in Table 3.4-1, habitat on the project site is unlikely to be suitable for special-status wildlife species that are known to occur in the region. Because most of the project site has been graded and cleared of vegetation or has been altered by human activities, there is no potential habitat for special-status plant species. Therefore, project implementation would not have a substantial adverse effect on any special-status wildlife or plant species. There would be no impact.

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

No impact. No riparian habitat or other sensitive natural community is present within the project site. Therefore, the project would not disturb any sensitive natural communities. There would be no impact.

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

No impact. No federally-protected wetlands or waters of the United States are present within the project site. There is a shallow man-made drainage constructed in uplands for conveying stormwater under the driveway entrance. The channel begins at the base of the berm that surrounds the reservoir and continues along the northern boundary of the project site, under the driveway to the west, and then flattens out to ground level at the northwest corner of the project site. This drainage does not support wetland vegetation and is not connected to any waters of the United States. No other wetlands or waterways are within the project site. Therefore, the project would have no impact on wetlands.

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?

Less than significant with mitigation incorporated. There are no established wildlife corridors in the project vicinity, and project development would not interfere substantially with the movement of any native resident or migratory wildlife species because the project site does not currently provide an important connection between any areas of natural habitat that would otherwise be isolated. However, project construction would result in removal of native and ornamental trees around the water tank and potentially ponderosa pines that could provide suitable nesting habitat for nesting birds and raptors protected by the Migratory Bird Treaty Act (MBTA) and Sections 3503 and 3503.5 of the California Fish and Game Code.

Vegetation removal and ground disturbances associated with project implementation could result in direct destruction of active nests of common birds and raptors protected under the MBTA or California Fish and Game Code if they are present. Project construction could also result in indirect disturbance of nesting birds on or near the project site causing nest abandonment by the adults and mortality of chicks and eggs. Loss of active bird nests is considered a potentially significant impact.

Mitigation Measure 3.4-1: Pre-construction surveys for nests.

If construction activity, tree removal, trimming, or pruning on the project site begins during the nesting season for protected bird species in this region (generally late February through early September), a qualified biologist shall conduct preconstruction surveys in areas of suitable nesting habitat for common raptors and bird species protected by the MBTA or California Fish and Game Code. Surveys will be conducted no more than 14 days before any ground disturbance is expected to occur and will extend at least 100 feet from the edge of the disturbance activity for non-raptor bird species and at least 500 feet of project activity for all raptor species potentially nesting in the area. Surveys will cover potential nesting habitat for tree and shrub nesting species as well as ground nesting species.

If no active nests are found, no further mitigation is required. If active nests are found, the construction contractor will avoid impacts on such nests by establishing a no-disturbance buffer around the nest. The appropriate buffer size for all nesting birds will be determined by a qualified biologist based on the species of nesting bird, nature of the project activity, the extent of existing disturbance in the nest area, visibility of the disturbance from the nest site, and other relevant circumstances.

No construction will occur within the established buffer area of an active nest until a qualified biologist, in consultation with CDFW, confirms that the chicks have fledged and are no longer dependent upon the nest or the nesting cycle has otherwise completed. Monitoring of the nest by a qualified biologist during construction activities will be required if the activity has the potential to adversely affect the nest. If construction activities cause the nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, then the no-disturbance buffer will be increased until the agitated behavior ceases. The exclusionary buffer will remain in place until the chicks have fledged or as otherwise determined by a qualified biologist.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-1 would reduce the impact to nesting bird species to a **less-than-significant** level by identifying the presence of active nests on or near the project site and avoiding potential impacts during construction.

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

No impact. The Nevada County Code, Chapter 2, Section 4.15, regulates the planting, removal, and preservation of the following trees on public property, as defined by the County Code: landmark trees (*Quercus* species with a diameter at breast height of 36 inches or greater), landmark groves (hardwood tree groves marked for preservation by the County, State, or Federal Government), and heritage trees and groves (a tree or group of hardwood trees designated by the Board of Supervisors to be of historical or cultural value, outstanding specimens, unusual species, or of a significant community benefit) (Nevada County 2018). The trees that may be removed as part of the project do not meet the criteria for tree preservation in Nevada County because they are not landmark trees and have not been marked for preservation by the County, State or Federal Government or designated as heritage trees by the Board of Supervisors. Further, the project would include planting of ornamental trees around the proposed water tanks that blend in with existing vegetation and landscaping to replace the trees lost. Therefore, removal of trees within the project site would not conflict with any local policies or ordinances protecting trees and no impact would occur.

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

No impact. The project is not located within an area covered under an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state conservation plan. Therefore, project implementation would not conflict with the provisions of an adopted conservation plan and would result in no impact.

3.5 CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. Cultural Resources. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
d) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

3.5.1 Environmental Setting

ETHNOGRAPHIC SETTING

The projects site is located within territory occupied by the Nisenan at the time of initial contact with European Americans. The Nisenan are Native American peoples, also referred to as “Southern Maidu,” who occupied the drainages of the southern Feather River and Honcut Creek in the north, through the Bear River and the Yuba and American River drainages in the south. Villages were frequently located on flats adjoining streams and were primarily inhabited in the winter when the native peoples were not gathering food. Life for the Nisenan revolved around hunting, fishing, and collecting plants for food. They were very sophisticated in their knowledge of the uses of local animals and plants, and of the availability of raw material sources that could be used in manufacturing an immense array of primary and secondary tools and implements. Unfortunately, only fragmentary evidence of the material culture of these people remains, because of perishability and impacts to archaeological sites resulting from later (historic) land uses (e.g., mining, ranching and timber harvest) (Jensen 2014 cited in Nevada County 2016).

HISTORIC SETTING

Recorded history in the region began with attempts of Spanish colonists to explore parts of California beyond the coastal zone. Gabriel Moraga’s expedition was undertaken in 1806, with additional incursions occurring through the 1840s. European Americans began arriving in more substantial numbers in the mid-1820s, most notably with the trapping expeditions of Jedediah Smith. However, the European American incursion with the greatest impact on Native American population and culture occurred immediately following the discovery of gold at Coloma in 1848, which initiated the Gold Rush of 1849.

Mining along virtually every stream in the Nevada City and Grass Valley areas was under way by 1850. Placer mining continued to yield large quantities of gold through the next several years, and by 1855 was also supporting other industries including stores, transportation companies, saloons, toll roads and stage lines, foundries, lumber mills, and water companies. Isolated features related to historic mining activities and associated transportation are ubiquitous throughout portions of Nevada County. They include sluiced areas, ditches, “glory holes,” collapsed shafts and adits, debris scatters, tailings piles, and occasionally structural remains.

Logging, ranching, and wood mill operations represent additional historic themes for this area of the county. As with the earlier mining emphasis, associated activities have also adversely affected the local cultural resources base (Jensen 2014 cited in Nevada County 2016).

RECORDS SEARCH

In March 2018 an archaeological literature review for the project at the North Central Information Center (NCIC) at California State University, Sacramento. The records search at the NCIC indicates two prior studies have been completed within the 1/8-mile search radius. One of these previous studies included the entirety of the project site. The records search at the NCIC indicates no cultural resources have been previously recorded within the project site or within the 1/8-mile search radius.

PALEONTOLOGICAL RESOURCES

Significant nonrenewable vertebrate and invertebrate fossils and unique geologic units have been documented throughout California. The fossil-yielding potential of an area is highly dependent on the geologic age and origin of the underlying rocks. Paleontological potential refers to the likelihood that a rock unit will yield a unique or significant paleontological resource. All sedimentary rocks, some volcanic rocks, and some low-grade metamorphic rocks have potential to yield paleontological resources. Depending on the location, the paleontological potential of subsurface materials generally increases with depth beneath the surface, as well as with proximity to known fossiliferous deposits.

Pleistocene or older (older than 11,000 years) continental sedimentary deposits have a high paleontological potential while Holocene-age deposits (less than 10,000 years old) have a low paleontological potential, because they are geologically immature and are unlikely to have fossilized the remains of organisms. Metamorphic and igneous rocks have a low paleontological potential, either because they formed beneath surface area (such as granite), or because they have been altered under high heat and pressures, chaotically mixed or severely fractured. Generally, the processes that form igneous and metamorphic rocks too destructive to preserve identifiable fossil remains.

A search of the University of California Museum of Paleontology's (UCMP) database was conducted on March 22, 2018. Records of paleontological finds maintained by the University of California Berkeley Museum of Paleontology (2018) state that there are 62 localities at which fossil remains have been found in Nevada County (UCMP 2018). However, the project site is within the western portion of the county that is underlain by metavolcanic and granitic formations, which are considered to have low potential for paleontological resources.

3.5.2 Discussion

a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

No impact. Historical resources include standing buildings (e.g., houses, barns, outbuildings, cabins) and intact structures (e.g., dams, bridges). A significant historical resource is defined as "a resource listed or eligible for listing on the California Register of Historical Resources (CRHR)" (Public Resources Code [PRC] Section 5024.1). A historical resource may be eligible for listing on the CRHR if it:

1. is associated with events that have made a significant contribution to the broad patterns of California's history or cultural heritage; or

2. is associated with the lives of persons or important in our past; or

3. embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possess high artistic values; or

4. has yielded, or may be likely to yield, information important to prehistory or history.

Eligibility for listing on the CRHR rests on dual factors of significance and integrity. A property must have both significance and integrity to be eligible. Loss of integrity, if sufficiently great, will overwhelm historical significance a property may possess and render it ineligible. Likewise, a property can have complete integrity, but if it lacks significance, it must also be ineligible.

There is one small building within the project site that would not be affected by the project. There are no other buildings (e.g., houses, barns, outbuildings, or cabins) located within the project site that are considered historically significant. Therefore, no historic resources would be affected by the project and there would be no impact.

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

Less than significant with mitigation incorporated. As described above in Section 3.5.1, there were no significant cultural resources identified within the project vicinity. In addition, the project site is highly disturbed from excavation of the existing reservoir on-site. The new water tanks would be within the footprint of the previously excavated reservoir. However, the potential exists that unidentified archaeological resources could be discovered during construction. This is unlikely because of the previous construction on the project site, but damage to an unknown archaeological resource would be a potentially significant impact.

Mitigation Measure 3.5-1a: Inadvertent discovery of historical and archaeological resources.

If any prehistoric or historic-era subsurface archaeological features or deposits, including locally darkened soil (potentially a “midden”), that could conceal cultural deposits, are discovered during construction, all ground-disturbing activity within 100 feet of the resources shall be halted and a qualified professional archaeologist shall be retained to assess the significance of the find. If the find is determined to be significant by the qualified archaeologist (i.e., because it is determined to constitute either a historical resource or an unique archaeological resource), the archaeologist shall develop appropriate procedures to protect the integrity of the resource and ensure that no additional resources are affected. Procedures could include but would not necessarily be limited to preservation in place, archival research, subsurface testing, or contiguous bock unit excavation and data recovery.

Mitigation Measure 3.5-1b: Implement a Worker Environmental Awareness Program.

Before any ground-disturbing work (including vegetation clearing, grading, and equipment staging) commences, NID or its Contractor will retain a qualified archaeologist that will conduct a mandatory cultural resources awareness training for all construction personnel involved with these activities. In addition, NID will notify tribal representatives a minimum of 7 days prior to conducting the cultural resources awareness training to allow for attendance by any interested tribal representatives and to afford the tribal representatives the opportunity to provide tribal cultural resources awareness information to the construction personnel. The training will cover the cultural history of the area, characteristics of archaeological sites, applicable laws, and the avoidance and minimization measures to be implemented. Proof of personnel attendance will be provided to overseeing agencies as appropriate. If new construction personnel associated with ground-disturbing work are added to the project after the training has been conducted, the contractor will require that the new personnel receive the mandatory training before starting work.

Significance after Mitigation

Implementation of Mitigation Measures 3.5-1a and 3.5-1b would reduce impacts associated with archaeological resources to a **less-than-significant** level because the measures would require the performance of professionally accepted and legally compliant procedures for the discovery of previously

undocumented significant archaeological resources and train construction personnel on identification of cultural resources.

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

Less-than-significant impact. Although paleontological resources have been found within the county, the project would replace an existing reservoir with new tanks that would require construction in a highly disturbed area. The new tanks would be within the footprint of the reservoir that was previously excavated. In addition, the project site is underlain by geologic formations that are not considered sensitive for paleontological resources. Therefore, the likelihood of encountering paleontological resources during project construction is extremely low. This impact would be less than significant.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less than significant with mitigation incorporated. Based on the research described above, no evidence suggests that any prehistoric or historic-era marked or un-marked human interments are present within or in the immediate vicinity of the project site. However, there is a possibility that unmarked, previously unknown Native American or other graves could be present and could be uncovered during construction activities. California law recognizes the need to protect historic-era and Native American human burials, skeletal remains, and grave-associated items from vandalism and inadvertent destruction and any substantial change to or destruction of these resources would be a potentially significant impact.

Mitigation Measure 3.5-2: Inadvertent discovery of human remains.

If human remains are discovered during any construction activities, potentially damaging ground-disturbing activities in the area of the remains will be halted immediately, and NID will notify the County coroner and the NAHC immediately, according to Section 5097.98 of the Public Resources Code and Section 7050.5 of California's Health and Safety Code. If the remains are determined by the NAHC to be Native American, the guidelines of the NAHC will be adhered to in the treatment and disposition of the remains. NID will also retain a professional archaeologist with Native American burial experience to conduct a field investigation of the specific site and consult with the Most Likely Descendant (MLD), if any, identified by the NAHC. Following the coroner's and NAHC's findings, the archaeologist, and the NAHC-designated MLD will determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in California Public Resources Code Section 5097.94.

Significance after Mitigation

Implementation of Mitigation Measure 3.5-2 would reduce potentially significant impacts to human remains because actions would be implemented to avoid, move, record, or otherwise treat the remains appropriately, in accordance with pertinent laws and regulations. By providing an opportunity to avoid or minimize the disturbance of human remains, and to appropriately treat any remains that are discovered, this impact would be reduced to a **less-than-significant** level.

3.6 GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Geology and Soils. Would the project:				
a) Expose people or structures to 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 California Geological Survey Special Publication 42.)	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

3.6.1 Environmental Setting

The project site is located in Nevada County in the western Sierra Nevada foothills, and is part of the Sierra Nevada Range. The western portion of the county that encompasses the project site is generally underlain by metavolcanic and granitic formations.

Soils underlying the project site are from the Sites very stony loam complex, 2 to 15 percent slopes and 15 to 50 percent slopes (Exhibit 3.6-1). The Sites series generally consist of deep or very deep, well drained soils formed in material weathered from metabasic and metasedimentary rocks. This soil type has low to very high runoff and moderately slow permeability (NRCS 2007).

Exhibit 3.6-1 **Soils within the Project Site**

The project site is not located within the vicinity of an Alquist-Priolo zone. The nearest active or potentially active fault is the Cleveland Hills fault, which is more than 35 miles northwest of the site. Although ground movement can be felt in the project area; the area is rated as a low-intensity earthquake zone (Grass Valley 1999). According to the Nevada County General Plan, most of the county is also considered low risk for liquefaction and ground failure (Nevada County 1995).

3.6.2 Discussion

a) Expose people or structures to 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 California Geological Survey Special Publication 42.)

No impact. The Alquist-Priolo Act (Public Resources Code Sections 2621–2630) was passed in 1972 to mitigate the hazard of surface faulting to structures designed for human occupancy. The purpose of the Act is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The project site is not located within a fault zone as delineated on an Alquist-Priolo Fault Zoning Map (DOC 2007), and the project site is not located within a seismically-active area. In addition, the project would not include any buildings for human occupancy. Therefore, no impact would occur.

ii) Strong seismic ground shaking?

Less-than-significant impact. No faults are mapped as crossing or trending towards the site; therefore, the potential for surface rupture at the site is considered low. Moderate ground motion could occur at the site as a result of faults in the surrounding area; however, the tanks would be constructed in accordance with the provisions of American Water Works Association and American Society of Civil Engineers standards, and the International Building Code. The potential for seismic impacts would be minimized by applying these standard engineering and construction techniques in compliance with the requirements of the applicable building codes. Because the project would be designed in accordance with the most recent building codes, the project's seismic hazard impacts would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less-than-significant impact. Liquefaction is possible in areas of loose, sandy soils with a high water content. However, the soils located within the project site are generally well-drained. Additionally, the County General Plan (Nevada County 1995) indicates that most of the county is also considered low risk for liquefaction. Appropriate grading and foundation preparation would reduce the potential for liquefaction to a negligible level. Therefore, this impact would be less than significant.

iv) Landslides?

Less-than-significant impact. The project site is located on flat to gently sloping land. In general, landslide susceptibility is very low where slopes are low, even in weak ground material. Because slopes are generally flat in the project vicinity, landslide susceptibility for the project would be low. Therefore, this impact would be less than significant.

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

Less-than-significant impact. Grading and excavation during project construction would result in exposure of soil to potential wind and water erosion until the project site is effectively stabilized and revegetated. The project

would disturb approximately 1.5 acres, and construction projects disturbing 1 acre or more need to obtain coverage under the State Water Resources Control Board's General Construction Stormwater Permit. The general construction permit requires preparation of a detailed SWPPP for the construction site that includes best management practices (BMPs) to prevent and control erosion. The general construction permit also requires the developer to conduct regular inspections of their BMPs before, during, and after storm events.

Compliance with state requirements for controlling construction-related pollution and preparation and implementation of a SWPPP and associated BMPs would reduce project-related erosion impacts to a less-than-significant level.

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

Less-than-significant impact. Slope instability includes landslides, debris flows, and rock fall. The project site is in an area mapped as having low potential for landslides. The topography of the project site is relatively flat, and landslides and debris flows are not anticipated. Therefore, project-related impacts related to unstable soils would be less than significant.

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

Less-than-significant impact. Substantial risk to life or property would generally occur to habitable buildings, which could experience compromised structural integrity because of expansive soils. However, if expansive soils are encountered on-site it could result in damage to the proposed water tank structures. Expansive soils are addressed through standardized foundation engineering practices, and the project would be constructed in compliance with applicable CBC regulations and other County and State requirements to address expansive soils. Therefore, this impact would be less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No impact. The project does not include the construction of any septic tanks or wastewater disposal systems. Therefore, there would be no impact.

3.7 GREENHOUSE GAS EMISSIONS

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

3.7.1 Environmental Setting

Certain gases in the earth's atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth's surface temperature. GHGs are responsible for "trapping" solar radiation in the earth's atmosphere, a phenomenon known as the greenhouse effect. Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

Emissions of GHGs have the potential to adversely affect the environment because such emissions contribute, on a cumulative basis, to global climate change. Although the emissions of one single project, would not cause global climate change, GHG emissions from multiple projects throughout the world could result in a cumulative impact with respect to global climate change.

Human-caused emissions of these GHGs in excess of natural ambient concentrations are responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic factors together (Intergovernmental Panel on Climate Change [IPCC] 2014:3, 5). By adoption of Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, and Senate Bill (SB) 97, the State of California has acknowledged that the effects of GHG emissions cause adverse environmental impacts. AB 32 mandates that emissions of GHGs must be capped at 1990 levels by the year 2020 (California Air Resources Board [CARB] 2007). In August 2016, Governor Brown signed SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020 to achieve a Statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. Executive Order S-3-05, signed by Governor Arnold Schwarzenegger in 2005, established total GHG emission targets for the State. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

On January 20, 2017, CARB released its proposed *2017 Climate Change Scoping Plan Update* (2017 Scoping Plan), which lays out the framework for achieving the 2030 reductions as established in more recent legislation. On December 14, 2017, CARB approved the 2017 Scoping Plan. The 2017 Scoping Plan Update identifies the GHG reductions needed by each emissions sector to achieve a statewide emissions level that is 40 percent below 1990 levels before 2030. The update also identifies how GHGs associated with proposed projects could be evaluated under CEQA. Specifically, it states that achieving "no net increase" in GHG emissions is the correct overall objective of projects evaluated under CEQA if conformity with an applicable local GHG reduction plan cannot be demonstrated. CARB recognizes that it may not be appropriate or feasible for every development project to mitigate its GHG emissions to no net increase and that this may not necessarily imply a substantial contribution to the cumulatively significant environmental

impact of climate change. CARB also acknowledges that lead agencies have the discretion to develop evidence-based numeric thresholds (mass emissions, per capita, or per service population) consistent with the Scoping Plan, the State's long-term GHG goals, and climate change science (CARB 2017).

Climate change is a global impact; thus, GHG emissions are analyzed as a cumulative impact. In California, several agencies have adopted thresholds of significance for GHGs. The project site is within Nevada County and the jurisdiction of the NSAQMD. NSAQMD has not developed thresholds of significance for assessing GHG emissions. However, other air districts in the region have recommended GHG thresholds of significance. The Placer County Air Pollution Control District (PCAPCD), Sacramento Metropolitan Air Quality Management District (SMAQMD), and Bay Area Air Quality Management District (BAAQMD) recommend a mass emission threshold of 1,100 metric tons of carbon dioxide equivalent per year ($MTCO_2e$/year) for analyzing GHG emissions (PCAPCD 2016; SMAQMD 2015; BAAQMD 2017). This level represents the emissions level below which the GHG impact would be considered less than cumulatively considerable. Therefore, PCAPCD, SMAQMD, and BAAQMD consider the GHG emissions associated with project operation to be less than significant if the emissions generated by the project would be less than 1,100 $MTCO_2e$/year.

While the 1,100 $MTCO_2e$ threshold is generally applicable to operational emissions, it is also appropriate for analysis of construction-related emissions because it represents a level below which emissions would not be considered cumulatively considerable. Construction activities lead to emissions that are finite and temporary, therefore, this analysis focuses on the one-time increase in the GHG emissions.

SB 32, signed in September 2016, set a new state target for the year 2030 at 40 percent below 2020 levels which will make it possible to reach the ultimate goal of reducing emissions 80 percent below 1990 levels by 2050 set by Executive Orders S-3-05 and B-30-15. Thus, for projects that would generate emissions beyond 2020, thresholds established for compliance with 2020 targets may be reduced by 40 percent and 80 percent so as to not conflict with or prevent the state from meeting 2030 and 2050 GHG targets.

3.7.2 Discussion

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

Less-than-significant impact. Operation of the project would include routine maintenance activities similar to what occurs under existing conditions and would not increase the vehicle trips associated with operation and maintenance. Operation of the two new water tanks would not result in increased GHG emissions, because the project would not involve any new direct or indirect emission sources or increased activity by existing emissions sources (such as new motor vehicle trips or increased consumption of electricity).

Construction activities would result in temporary GHG emissions related to worker commute trips, delivery of materials, and off-road construction equipment (e.g., excavators, backhoes, dozers). Project construction is expected to start within 5 years of the CEQA approval and take approximately 14 months to complete. Construction would primarily be limited to the hours of 7:00 a.m. to 7:00 p.m., Monday through Saturday, with work occasionally occurring on Sundays or evenings. Approximately 10 workers would be on-site during construction per day and 450 total truck deliveries of materials. Cut and fill would be balanced on-site. The new tanks would be constructed from pre-stained concrete; therefore, no coating operations would occur on-site. Construction emissions of criteria air pollutants and precursors were also modeled using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 computer program (CAPCOA 2017). Modeling was based on project-specific information (e.g., size, construction phasing, area to be graded, area to be paved) where available; reasonable assumptions based on typical construction activities; and default values in CalEEMod that are based on the project's location.

Project implementation would result in a net increase of 193 $MTCO_2e$ over the 14 months of construction. This one-time mass of GHG emissions would be less than PCAPCD, SMAQMD, and BAAQMD recommended mass emission threshold of 1,100 $MTCO_2e$/year; thus, project-related GHG emissions would not be

cumulatively considerable. No mass emission thresholds specifically tied to the statewide reduction goal of 40 percent below 1990 levels by have been developed by an air district in California. At the time of writing this environmental document, potential mass emission thresholds notable of consideration are 660 $MTCO_2e$/year, which is 40 percent below 1,100 $MTCO_2e$/year. This level is used to provide context for the project's emissions and not intended to be used as a threshold of significance for 2030. As described above, the project would not lead to an increase in long-term operational emissions and construction activities would be complete in 2020. Given that the one-time increase in GHG emissions associated with the proposed project would not exceed either of these more stringent threshold levels, the project's GHG emissions would be minimal and not cumulatively considerable. This impact would be less than significant.

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

Less-than-significant impact. As discussed in item a) above, operation of the two water tanks would not result in increased GHG emissions because the project would not result in any new long-term operational direct or indirect sources of GHG emissions or increased activity by existing emissions sources. As also explained in item a) above, the project's one-time emissions of 193 $MTCO_2e$ would be nominal. Therefore, the project would not conflict with or obstruct implementation of CARB's *California's 2017 Climate Change Scoping Plan* (CARB 2017) for achieving GHG reductions consistent with AB 32, SB 32 and Executive Orders S-3-05 and B-30-15. This impact would be less than significant.

3.8 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. Hazards and Hazardous Materials. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐

3.8.1 Environmental Setting

The project site is located in a residential area bordered by Francis Drive to the north and west and Alta Sierra Drive to the south and east. A data search of various agency lists was conducted for the project site and surrounding areas to identify potential hazardous contamination sites. There are no hazardous cleanup sites listed for the project site or within 0.5-mile of the project site (DTSC 2018, EPA 2018, CalEPA 2018).

The nearest airport is Alta Sierra Airport, which is a private airstrip located 2 miles from the project site. The nearest school to the project site is the American Christian Academy located approximately 1 mile from the project site. The project area is considered to have a high potential for wildland fires (CAL FIRE 2007).

3.8.2 Discussion

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

Less-than-significant impact. Construction of the project would involve the routine transport and handling of hazardous substances such as diesel fuels, lubricants, and solvents. In addition, the Hypalon liner that would be removed and disposed of in an appropriate manner. Handling and transport of these materials could result in the exposure of workers to hazardous materials. Chlorine is also currently used on site in accordance with current regulations. Construction workers would be required to use, store, and transport hazardous materials in accordance with local, state, and federal regulations, including California Occupational Safety and Health Administration (Cal/OSHA) and California Department of Toxic Substances Control (DTSC) requirements and manufacturer's instructions, during project construction. Because the project would be required to implement and comply with existing hazardous material regulations, impacts related to the creation of significant hazards to the public or environment through the routine transport, use, and disposal of hazardous materials would be unlikely. Therefore, this impact would be less than significant.

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

Less than significant with mitigation incorporated. There are no reported or anticipated sources of hazardous material contamination within the project site. Operation of the water tanks would not introduce new hazardous materials into the area. However, it is possible that hazardous materials such as fuels, oils, grease, and lubricants from equipment could be accidentally released during construction. Therefore, construction on the project site, including demolition and excavation of soils, could potentially result in disturbance of previously unknown contaminants. These actions could result in the exposure of construction workers to hazardous materials. Therefore, this impact would be potentially significant. Implementation of the following mitigation would reduce this impact to a less-than-significant level.

Mitigation Measure 3.8-1: Prepare and implement a health and safety plan.

The contractor shall prepare a Health and Safety Plan, which shall be reviewed and approved by NID before initiating any demolition, grading, or other earthmoving activities. This plan shall require measures that will be employed during all demolition and construction activities to protect construction workers and the public from exposure to hazardous materials. These measures could include, but would not be limited to, posting notices, limiting access to the site, air monitoring, and watering. Contractors will be required to comply with state health and safety standards for all demolition work. If necessary, this shall include compliance with the federal OSHA and Cal/OSHA requirements.

In addition, the plan shall include procedures to follow in the event that contaminated soil and/or groundwater or other hazardous materials are generated or encountered during construction. Such procedures could include, but would not be limited to, the following:

- all work shall be halted in the affected area and the type and extent of the contamination shall be determined;
- the project contractor shall notify the project applicant if evidence of previously undiscovered soil or groundwater contamination (e.g., stained soil, odorous groundwater) is encountered during excavation;

- any contaminated areas shall be remediated in accordance with recommendations made by RWQCB and DTSC; and
- remediation activities could include but would not be limited to the excavation of contaminated soil areas and hauling of contaminated soil materials to an appropriate off-site disposal facility, mixing of on-site soils, and capping (i.e., paving or sealing) of contaminated areas.

Significance Conclusion

Implementation of Mitigation Measure 3.8-1 would reduce the potential for the project to create hazards by requiring remediation upon discovery of unknown contaminates on the site. Therefore, this impact would be reduced to a **less-than-significant** level.

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

No impact. As stated above, the nearest school is American Christian Academy, which is approximately 1 mile from the project site. There are no schools within 0.25-mile of the project site. Therefore, there would be no impact.

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

No impact. The Hazardous Waste and Substances Sites List (Cortese List) is a planning document used by the State, local agencies, and developers to comply with the CEQA requirements in providing information about the location of hazardous materials release sites. Government Code section 65962.5 requires CalEPA to develop at least annually an updated Cortese List. DTSC is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List. DTSC's EnviroStor database provides DTSC's component of Cortese List data.

As discussed above, review of regulatory agency databases indicated that no records of any hazardous materials were identified for the project site or surrounding area. The project site is not identified on the Cortese list or other State or county hazardous materials lists. 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 for people residing or working in the project area?

No impact. The nearest public airport is Auburn Municipal Airport, which is 13 miles from the site. There are no public airports within 2 miles of the project site and the project site is not within an airport land use plans area. Therefore, there would be no impact.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

Less-than-significant impact. Alta Sierra Airport is a private airstrip located 2 miles from the project site. However, because of the small size and localized nature of the project, the project would not result in any hazards for people or workers in the project area. This impact would be less than significant.

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

Less-than-significant impact. Nevada County has adopted an Emergency Operation Plan. However, the project would not physically interfere with this, or any other emergency response plan. Trucks and equipment traveling to the project site would use Francis Drive and Alta Sierra Drive. Construction vehicles would stage

on the project site, and they would not stage near or block any evacuation routes. Therefore, the project would not physically interfere with any emergency response or evacuation plans. This impact would be less than significant.

h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Less-than-significant impact. The project site is in an area designated as having a high potential for wildland fires. During construction, vehicles and other equipment would be used on site, but spark-arresting and fire extinguishing requirements would be adhered to. In the long-term, the project would result in construction of new concrete water tanks, which would not increase the fire risks, and would not introduce new residents into the high fire severity zone. Therefore, the project would not expose people or structures to a significant loss, injury, or death involving wildland fires. This impact would be less than significant.

3.9 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. Hydrology and Water Quality. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial on- or offsite erosion or siltation?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or offsite flooding?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Result in inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

3.9.1 Environmental Setting

HYDROLOGY

The project site is within the Sierra Nevada foothills with rolling hills throughout the area. Specifically, the project site is within Wolf Creek watershed (Exhibit 3.9-1). Wolf Creek is a perennial stream that passes through the City of Grass Valley and continues to the south where it is tributary to the Bear River. Wolf Creek drains approximately 80 square miles (WCCA 2013).

The only water feature on-site is the human-made reservoir. There are no natural waterways on-site and the nearest waterway is Rattlesnake Creek, which is northwest of the project site and is tributary to Wolf Creek (Grass Valley 1999).

STORMWATER DRAINAGE

There is currently no stormwater system within the project site. Stormwater runs off the site naturally to the west, where it drains into several culverts near Francis Drive.

FLOODING

The project site is not located within the 100-year floodplain as designated by the Federal Emergency Management Agency (2018) (Exhibit 3.9-2). There are several dams within western Nevada County; however, the project area is not within the inundation area of any of these dams (Nevada County 2012).

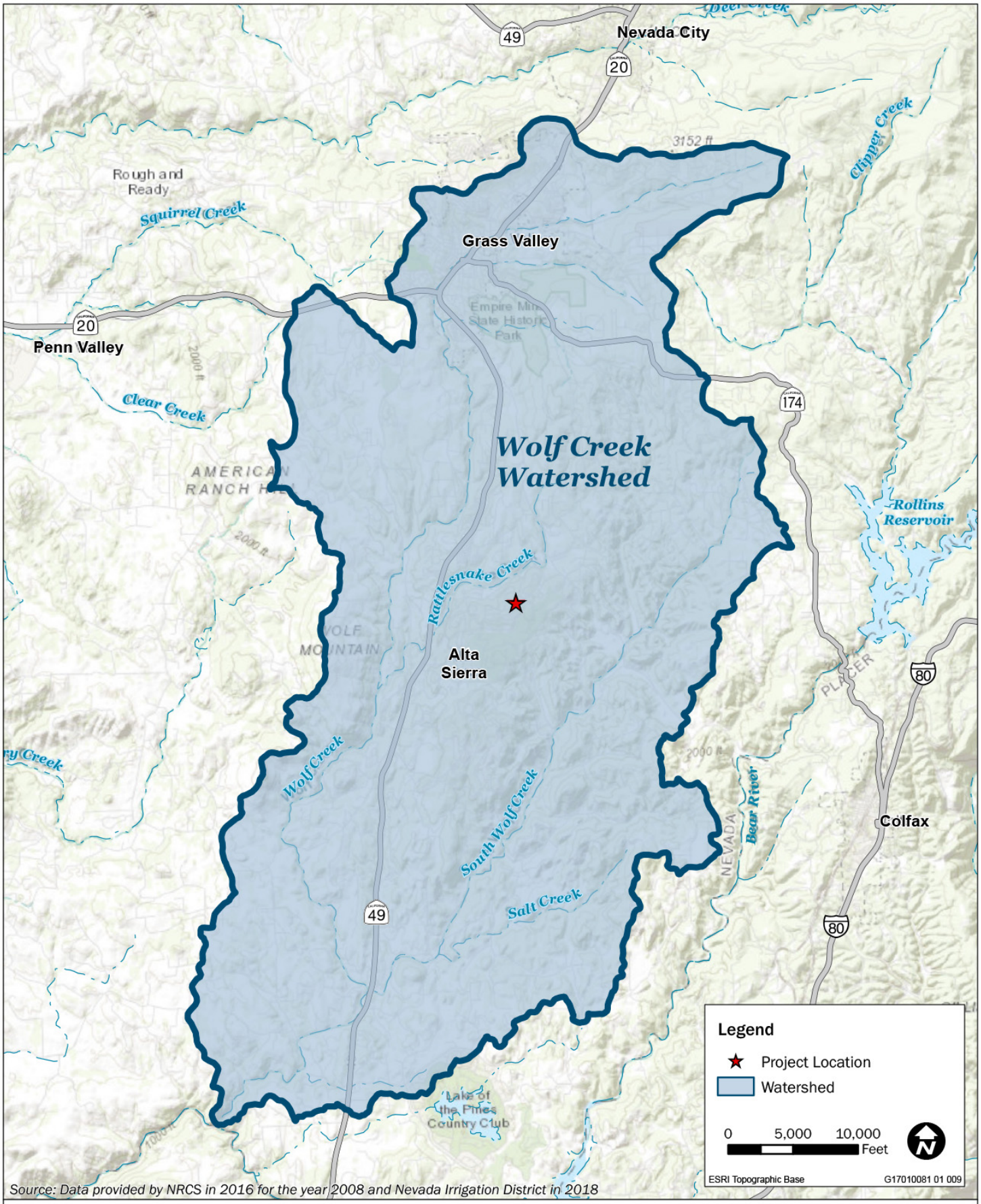
WATER QUALITY

Wolf Creek water quality is influenced by water treated at the Grass Valley Wastewater Treatment Plant. Wolf Creek is listed on the 303(d) list for bacteria. Water quality monitoring for Wolf Creek generally shows a decline in water quality in the summer months including exceedances of water temperature, dissolved oxygen, pH, and bacteria water quality standards (WCCA 2013).

3.9.2 Discussion

a) Violate any water quality standards or waste discharge requirements?

Less-than-significant impact. Stormwater runoff is regulated by the National Pollutant Discharge Elimination System (NPDES) Program. The NPDES program objective is to control and reduce pollutant discharges to surface water bodies. Compliance with NPDES permits is mandated by California and federal statutes and regulations. Locally, the NPDES Program is administered by the Central Valley RWQCB. According to its water quality control plans, any construction activities, including grading, that would result in the disturbance of 1 acre or more would require compliance with the General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activity. As discussed above under 3.6, “Geology and Soils,” a SWPPP that includes BMPs would be prepared for construction. Compliance with the NPDES permit and project design would prevent water quality degradation and violation of waste discharge requirements. This impact would be less than significant.



Source: Data provided by NRCS in 2016 for the year 2008 and Nevada Irrigation District in 2018

Exhibit 3.9-1 **Wolf Creek Watershed**

Exhibit 3.9-2 **100-Year Floodplains in the Project Vicinity**

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

No impact. The Hypalon liner of the existing reservoir is not permeable to runoff and acts as an impervious surface. The project would include construction of two water tanks that would have a smaller footprint than the existing reservoir. Therefore, the amount of impervious surface on site would be similar to or less than existing conditions. In addition, the project would not require groundwater pumping for construction or operation. Therefore, the proposed project would not deplete or otherwise affect groundwater supplies or recharge. There would be no impact.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial on- or offsite erosion or siltation?

Less-than-significant impact. The proposed tanks could modify drainage in the immediate vicinity. However, the site would be graded so that runoff would enter and exit the site at the same locations it does under existing conditions. Impervious surfaces would not increase on-site; therefore, the peak runoff from the site would not increase. Disturbed areas would also be revegetated to the extent possible, so that there would not be an increase in erosion from the site. This impact would be less than significant.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or offsite flooding?

Less-than-significant impact. As described above under c), the tanks could slightly alter localized drainage; however, the project would not increase the amount of runoff from the project site and the site would be graded to prevent on- or offsite flooding. This impact would be less than significant.

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

Less-than-significant impact. The project would not contribute runoff water that would exceed the stormwater drainage capacity. Direct precipitation would continue to infiltrate into the soils over most of the site. The project would not increase impervious surfaces on-site and would not increase the peak runoff from the site. This impact would be less than significant.

f) Otherwise substantially degrade water quality?

Less-than-significant impact. The project would not substantially degrade water quality, as described under c) above. This impact would be less than significant.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No impact. The project site is not within the 100-year floodplain, and the proposed project does not involve the construction of housing. There would be no impact.

h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?

No impact. The project site is not located within a 100-year flood hazard area. There would be no impact.

i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

No impact. There are no dams or levees on or near the project site. As discussed above, there are several dams within western Nevada County; however, the project area is not within the inundation area of any of these dams (Nevada County 2012). Therefore, there would be no impact.

j) Result in inundation by seiche, tsunami, or mudflow?

No impact. Seiches and tsunamis require proximity to bodies of water. The project site is not located near any bodies of water at risk of seiches or tsunamis. In addition, mudflows are associated with steep slopes and the project site is in a generally flat area. Operation of the project would not increase the risks related to seiche, tsunami, or mudflow. There would be no impact.

3.10 LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. Land Use and Planning. Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

3.10.1 Environmental Setting

The project site is south of the City of Grass Valley within Nevada County. The site is owned by NID and is currently used for treated water storage. The site is surrounded by residential development. The County General Plan designates the surrounding area as Planned Residential Community and the zoning is medium-density residential.

The project site is designated in the County General Plan as PUB for public lands and is also zoned for public uses. This land designation is for areas used by federal, state, and local government agencies.

3.10.2 Discussion

a) Physically divide an established community?

No impact. The project site is located within a residential community; however, the current land uses on the project site are compatible with the surrounding neighborhood and land uses within the project site would not change. The project would not divide the established community. There would be no impact.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No impact. The existing land uses within the project are consistent with the public land use designation and zoning. The project would not result in any changes to the existing land use that would conflict with the existing land use designations for the site. Therefore, there would be no impact.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No impact. There are no habitat conservation plans or natural community conservation plans that are applicable to the project site. There would be no impact.

3.11 MINERAL RESOURCES

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

3.11.1 Environmental Setting

Significant mineral resources in the County include gold (in various forms), silver, copper, zinc, lead, chromite, tungsten, manganese, barite, quartz, limestone, asbestos, clay, mineral paint, sand, gravel, and rock (Nevada County 1995). The mineral resources are primarily concentrated in the western part of the County. The California Department of Conservation (DOC) Division of Mines and Geology has guidelines for the classification and designation of mineral lands, known as mineral resource zones (MRZs). The project site is designated as MRZ-1 meaning it is an area with a low likelihood of containing significant mineral deposits (DOC 1990).

3.11.2 Discussion

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?

No impact. The project site is not located within an area of known mineral resources, and the site is highly disturbed. The project would replace an existing reservoir and would not change the land use within the project site. Therefore, construction of the project would have no effect on the availability of known mineral resources that would be of value to the region and the residents of the state, and no impact would occur.

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

No impact. There are no locally important mineral resource recovery sites delineated on a local general plan, specific plan, or other land use plan that include the project site. Therefore, development of the project would have no effect on the availability of known mineral resources, and no impact would occur.

3.12 NOISE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. Noise. Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

3.12.1 Environmental Setting

Existing noise conditions are governed by the presence of noise-sensitive receptors, the location and type of noise sources, and overall ambient noise levels. Noise-sensitive land uses are generally considered to consist of those land uses where noise exposure could result in health-related risks or annoyance to individuals, as well as places where a quiet setting is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Noise-sensitive land uses are also considered vibration-sensitive.

The project is located in Nevada County. The project site is surrounded by off-site noise-sensitive receptors. The nearest off-site noise-sensitive receptor to the project site is a residence located approximately 30 feet to the south. Nevada County has established noise standards to protect citizens from excessive levels of noise exposure. Applicable policies and regulations are contained in the Nevada County Zoning Ordinance are described below.

NEVADA COUNTY ZONING ORDINANCE

Section L-II 4.1.7 (see Table 3.12-1 below) of the Nevada County Zoning Ordinance establishes the following noise standards that would apply to projects within the Nevada County. NID, as a special district, is exempt from the County Noise Ordinance; however, noise standards are provided below for reference.

Table 3.12-1 Nevada County Exterior Noise Limits

Land Use Category	Time Period	Noise Level (dB)	
		L_{eq}	L_{max}
Rural (AG, TPZ, AE, OS, FR, IDR Zoning Districts)	7 am – 7 pm	55	75
	7 pm – 10 pm	50	65
	10 pm – 7 am	40	55
Residential and Public (RA, R1, R2, R3, P Zoning Districts)	7 am – 7 pm	55	75
	7 pm – 10 pm	50	65
	10 pm – 7 am	45	60
Commercial and Recreation (C1, CH, CS, C2, C3, OP, REC Zoning Districts)	7 am – 7 pm	70	90
	7 pm – 7 am	65	75

Notes: dB = decibels; L_{max} = maximum sound level (highest instantaneous sound level measured during a specified period); L_{eq} = equivalent continuous sound level

Source: Nevada County 2012

The Nevada County Zoning Code Section L-II 4.1.7D.4 states that:

- Where two different zoning districts abut, the standard applicable to the lower, or more restrictive district plus 5 decibels (dB) shall apply.
- Noise generated by construction activities are exempt from the County's noise standards.

3.12.2 Discussion

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?

Less-than-significant impact. The project would not result in additional vehicular trips on local roadways after construction is complete. The project would also not result in the development of any new noise-sensitive receptors. Construction activities would result in short-term increases in noise levels within the project site. Construction activities would consist of removal of the existing Hypalon liner, site preparation, grading, construction of the two new water tanks, and hauling materials to/from the project site. Construction is primarily expected to be limited to the hours of 7:00 a.m. through 7:00 p.m., Monday through Saturday. Occasional work on Sundays or evenings may be required; however, equipment would not be operated after 7:00 p.m. and no pile-driving or blasting would take place.

Construction-generated noise levels would fluctuate depending on the type, number, and duration of equipment used. The effects of construction noise largely depend on the type of construction activities occurring on any given day, noise levels generated by those activities, distances to noise-sensitive receptors, and the existing ambient noise environment at nearby receptors.

Table 3.12-2 lists the noise levels generated by the types of equipment that would be used during project construction. Based on the reference noise levels listed in Table 3.12-2 and accounting for typical usage factors for each piece of equipment, on-site construction activities could generate maximum noise levels as high as 90 dB (L_{max}) and average noise levels as high as 85 dB (L_{eq}) at a distance of 50 feet.

Table 3.12-2 Noise Levels Generated by Typical Construction Equipment

Equipment Type	Maximum Noise Level (dB L_{max}) at 50 feet[1]	Typical Noise Level (dB L_{eq}) at 50 feet[1,2]
Grader	85	81
Dozer	85	81
Roller	85	78
Combined Noise Level at 50 feet	90	85
Attenuated Noise Level at 30 feet	94	89

Notes: dB= decibels; L_{max} = maximum sound level (highest instantaneous sound level measured during a specified period); L_{eq} = equivalent continuous sound level

1. Assumes all equipment is fitted with a properly maintained and operational noise control device, per manufacturer specifications. Noise levels listed are manufacturer-specified noise levels for each piece of heavy construction equipment.

2. Assumes typical usage factors.

Source: Federal Transit Administration (FTA) 2006; data modeled by Ascent Environmental 2018

Through distance alone these noise levels would increase to approximately 94 L_{max} and 89 L_{eq} at the closest residential dwelling unit 30 feet away. Thus, it is likely that the nearest residence could be exposed to noise levels that exceed Nevada County's daytime noise standards of 55 L_{eq} and 75 L_{max} for rural residences. These estimates conservatively assume that the noise-generating equipment could operate simultaneously near each other and along the boundary of the project site. Detailed noise modeling calculations are provided in Appendix B. Nonetheless, construction-generated noise is exempt from the standards in the Nevada County Zoning Ordinance because it is short-term in nature and no nighttime operation of construction equipment is anticipated to occur. Also, all construction equipment would be properly fitted with factory-installed muffler devices and maintained in good working order.

The new tanks would also include aeration blowers and mixers that would be new stationary noise sources, and the nearest noise sensitive receptor is approximately 30 feet away from the project site boundary. The model, location, and frequency of operation of the aeration blowers and mixers are not known at this time, so it is not possible to estimate post-project noise that might be generated from these features. However, as described in Chapter 2, "Project Description," the contractor(s) would be required to implement measures (e.g., install muffling devices, fully enclosing mechanical equipment) so that noise levels generated by on-site stationary noise sources would not exceed noise levels that are considered protective of residents and the public. Although NID is exempt from Nevada County exterior noise standards detailed in Table 3.12-1, these noise standards are considered protective of the surrounding land uses. Therefore, the project would be designed so as not to exceed the noise standards listed in Table 3.12-1 (i.e., 55 L_{eq} and 75 L_{max} from 7:00 a.m. to 7:00 p.m.; 50 L_{eq} and 65 L_{max} from 7:00 p.m. to 10:00 p.m.; 45 L_{eq} and 60 L_{max} from 10:00 p.m. to 7:00 a.m.).

Because construction-generated noise is exempt from local standards, and the project would be designed to maintain noise levels that are protective of residents and the public, this impact would be less than significant.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less-than-significant impact. The construction would not include substantial site disturbance and would not result in excessive ground vibration. No pile-driving or rock blasting would occur. Based on the types of construction activities that would take place (e.g., site preparation and excavation), it is expected that maximum groundborne vibration and noise levels would be generated by trucks operating in the project area and hauling materials to and from the construction activity areas. The Federal Transit Administration (FTA) vibration impact threshold of 85 vibration decibels (VdB) for construction, which is the vibration level that is considered by the FTA to be acceptable if there are an infrequent number of events per day, can be applied to construction activities. Most construction equipment does not result in VdB in excess of FTA thresholds,

even at 30 feet. In addition, per the Nevada County Zoning Ordinance, construction would primarily occur the exempt hours of construction between 7:00 a.m. and 7:00 p.m., Monday through Saturday. Occasional work on Sundays or evenings may be required; however, equipment would not be operated after 7:00 p.m.

Construction would be temporary, intermittent, short in duration, and operation of equipment that could result in groundborne vibration would take place during legal hours of construction. For the reasons described above, considering the type and number of construction equipment, the proposed project would not expose people to excessive groundborne vibration. The impact would be less than significant.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less-than-significant impact. The project would not result in a long-term increase in vehicle trips or develop or relocate noise-sensitive receptors. However, the new tanks would include new stationary noise sources (i.e., aeration blowers, mixers). The model, location, and frequency of operation of the new stationary noise sources are not known at this time. However, it is anticipated that a blower of 5-horsepower or lower would be used on-site. A 5-horsepower blower would generate noise-levels of approximately 47 dB at 50 feet, or approximately 51 dB at the closest residential dwelling unit 30 feet away.

However, as discussed under item a) above, the contractor(s) would be required to design all equipment to meet noise standards that are protective of residents and the public. Therefore, the proposed project would not result in a substantial permanent increase in ambient noise levels in the project vicinity. The project would have a less-than-significant impact on permanent ambient noise levels.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less-than-significant impact. As discussed under item a) above, the proposed project would involve the use of noise-generating construction equipment during daytime hours over a 14-month period and the nearest residence 30 feet south of the site could potentially be exposed to construction-generated noise levels as high as 94 L_{max} and 89 L_{eq}. However, construction-generated noise would only occur during daytime hours and is exempt from the noise exposure standards in the Nevada County Zoning Ordinance. Therefore, the construction-generated noise levels would not result in temporary or periodic increases in ambient noise levels that exceed applicable standards at the nearest noise-sensitive receptor. This impact would be less than significant.

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

No impact. The nearest public airport from the project site is the Auburn Municipal Airport, which is 13 miles away, and no one would reside on the project site. Because the project would not result in the development of any new noise-sensitive receptors, the project would not result in the exposure of people to excessive noise levels from aircraft operations. Additionally, this project would not result in people residing near an airport. There would be no impact related to noise exposure from aircraft activity.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No impact. The project site is 2 miles from the Alta Sierra Airport, and no one would reside on the project site. Because the project would not result in the development of any new noise-sensitive receptors, the project would not result in the exposure of people to excessive noise levels from aircraft operations. Additionally, this project would not result in people residing near an airport. There would be no impact related to noise exposure from aircraft activity.

3.13 POPULATION AND HOUSING

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

3.13.1 Environmental Setting

The project site is located in the unincorporated area of Nevada County. According to the US Census Bureau, in 2017 Nevada County's population totaled 99,814 with 53,535 total housing units and an occupation rate of 2.4 persons per household (U.S. Census Bureau 2017). The nearest City is Grass Valley, which had a population of 12,934 in 2016. The total housing units for Grass Valley was not reported for 2016 but totaled 6,637 in 2010 (U.S. Census Bureau 2017). There is no housing within the project site.

3.13.2 Discussion

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

No impact. The proposed project does not include the construction of new homes or businesses nor does it extend roads or infrastructure that would lead to population growth. The tanks to be constructed with the project would supply water to NID's service area; however, the project would be replacing an existing water storage reservoir. Therefore, the project would not include construction of new water supply infrastructure. There would be no impact.

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

No impact. Implementation of the proposed project would not require the removal of any homes causing the construction of replacement housing. There would be no impact.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No impact. Currently, there are no residential homes on the project site and the project would not expand into surrounding plots of land. No people would be displaced due to implementation of the project. There would be no impact.

3.14 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. Public Services. Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, 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?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

3.14.1 Environmental Setting

FIRE PROTECTION

The fire protection to the project site is provided by the Nevada County Consolidated Fire District (NCCFD). NCCFD also has a Joint Operating Agreement with Grass Valley Fire Department. The station located closest to the project site is Station 89 at 11833 Tammy Way, Grass Valley. This station has two engines and one water tender. Station 89 is staffed full time and always has at least one captain or lieutenant and one firefighter/operator on duty (NCCFD 2018). The project area is considered to have a high potential for wildland fires (CAL FIRE 2007).

POLICE PROTECTION

Police service to the unincorporated areas of Nevada County is provided by the Nevada County Sheriff's Department, which has a service area of 900 square miles. The nearest station is located at 950 Maidu Avenue in Nevada City.

SCHOOLS

The project site is within the Pleasant Ridge Union School District (PRUSD) area. The PRUSD has four schools in their district serving grades K-8 (Nevada County Superintendent of Schools 2018). However, the nearest school to the project site is American Christian Academy, which is a private school located approximately 1 mile from the project site.

PARKS

The closest park to the project site is Mathis Park located 0.8 mile from the project site. The park is 1.5 acres and is a wildlife area with a pond (Bear Yuba Land Trust 2017). The area is open to the public and maintained by the Bear Yuba Land Trust. The park has trails and catch and release fishing.

3.14.2 Discussion

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

Fire protection?

Less-than-significant impact. The project site is in an area designated as high fire risk, and construction-related activities and equipment used for the project could temporarily cause an increase in traffic on the surrounding local road network (see Section 3.16, "Traffic and Transportation"); however, the types of activities and amount of equipment would not cause noticeable increase in demand for fire protection. Operation of the project would not result in a permanent increase the need for fire that would result in the need for new or physically altered fire protection facilities because no new housing or other buildings and services would be constructed. Therefore, this impact would be less than significant.

Police protection?

No impact. The project would not increase the population in the project vicinity, and public access to the project site would not change from existing conditions. Therefore, the project would not cause an increase in demand for police services beyond existing conditions and no impact would occur.

Schools?

No impact. The project would not increase the population or housing in the project vicinity; therefore, it would not increase the number of students in the area. In addition, the project would not directly affect any schools. The project would have no impact on schools.

Parks?

No impact. As discussed above, the closest park is located 0.8 mile from the site. The project site is located on private property, and the proposed project would have no direct effect on parks. In addition, implementation of the proposed project would not lead to an increase in population that would use the parks. There would be no impact on parks.

Other public facilities?

No impact. The project would have no impact on other public facilities in the project vicinity. No additional residences or businesses would be constructed as a result of this project that could lead to increased demand on public facilities. Therefore, no impact would occur.

3.15 RECREATION

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

3.15.1 Environmental Setting

The closest park to the project site is Mathis Park located 0.8 mile from the project site. The park is 1.5 acres and is a wildlife area with a pond (Bear Yuba Land Trust 2017). The area is open to the public and maintained by the Bear Yuba Land Trust. The park has trails and catch and release fishing.

3.15.2 Discussion

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

No impact. The project would not increase the population or housing in the project vicinity. Therefore, use of existing neighborhood and regional parks or other recreational facilities would not change as a result of the Project. Because the Project would not result in the physical deterioration of public recreational facilities, no impact would occur.

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

No impact. The project would not increase the population in the project vicinity. Therefore, the project would not require construction of new homes or infrastructure, including parks and recreational facilities. No impact would occur.

3.16 TRANSPORTATION/TRAFFIC

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. Transportation/Traffic. Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☒	☐	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e) Result in inadequate emergency access?	☐	☒	☐	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

3.16.1 Environmental Setting

The project area is the unincorporated area of Nevada County. The project site is accessible from Francis Drive and Alta Sierra Drive (Exhibit 2-2). Access to the project area for construction vehicle traffic would be via the roadways listed above. Francis Drive connects to Alta Sierra Drive west of the project site. Alta Sierra Drive continues to the west where it to Highway 49. Detailed descriptions of the primary roadway facilities in the project vicinity as well as transit, bicycle, and pedestrian facilities that provide access to the project area are provided below.

TRANSPORTATION SYSTEM

The existing transportation system serving the project area includes the following roadways:

- *Francis Drive* is generally an east-west minor collector that runs parallel to Alta Sierra Drive and connects to Alta Sierra Drive at both ends. Francis Drive provides one travel lane in each direction. Traffic volumes along Francis Drive are approximately 374 vehicles trips per day (Nevada County 2018).

- *Alta Sierra Drive* is an east-west roadway that is classified as a major collector. Alta Sierra Drive provides one travel lane in each direction. Traffic volumes along Alta Sierra Drive east of Norlene Way are approximately 1,140 vehicles trips per day (Nevada County 2018).

- *Highway 49* is a north-south highway that is classified as a principal arterial that connects to Highway 70 on the north and Highway 120 on the south. Highway 40 in the project vicinity is one travel lane in each direction. Traffic volumes along Highway 49 in the project vicinity are approximately 31,000 vehicles trips per day (Caltrans 2017).

There is a Class III bike lane along Francis Drive in the project area. No other bike lanes are within or adjacent to the project area. A Class II bike lane is proposed along Highway 49 between Alta Sierra Drive and McKnight Way (Caltrans 2017). Nevada County Transit Services Division provides transit service to Nevada County. Two public transit systems operate within the county: Gold Country Stage, which is a fixed route system serving Grass Valley, Nevada City, and the adjacent unincorporated sections of the County, and Gold Country LIFT, which is a nonprofit organization contracted with by the County to provide demand response paratransit service for disabled residents in western Nevada County (Nevada County Transit Services 2018). There is a transit route along Alta Sierra Drive that only operates on Saturdays and Route 5 of the Gold Country Stage operates along Highway 49 and stops at Alta Sierra Drive (Nevada County 2018).

The nearest airport is Alta Sierra Airport, which is a private airstrip located 2 miles from the project site.

METHODS AND ASSUMPTIONS

The project has the potential to affect transportation facilities and increase traffic during construction. The project area would continue to be accessed via existing public roadways.

Assumptions used to evaluate traffic impacts are based on detail provided in Chapter 2, “Project Description.” As described in Chapter 2, it is assumed that construction would take approximately 14 months, and construction would require approximately 10 workers at any given time, depending on the intensity of the work activities. Delivery trips were based on materials needed for construction and averaged over the construction period.

Following construction, operations and maintenance of the new tanks would be similar to or less than that of the existing reservoir.

3.16.2 Discussion

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Less than significant impact with mitigation incorporated. There would be a temporary increase in construction-related traffic from materials deliveries and construction workers traveling to and from the project area and temporary construction staging areas. The number of workers would vary during the construction period; however, there could be approximately 10 workers commuting daily to the project site during the 14-month construction period. There would be material delivery trips during initial construction staging, daily equipment and material delivery, and demobilization at the end of construction. In addition, there would be approximately 450 trucks associated with hauling concrete. Construction activities would primarily take place from Monday through Saturday during normal daytime working hours (7:00 a.m. to 7:00 p.m.), with occasional work on Sundays or evenings. Alta Sierra Drive and Francis Drive may be used to access the project site.

Local roadways in the project area have relatively low traffic volumes. Traffic volumes along Alta Sierra Drive are approximately 1,140 vehicles trips per day and 374 vehicles trips per day along Francis Drive. Although construction-related traffic would be temporary, there may be periods during construction that there would be a substantial increase in traffic on adjacent roadways. Therefore, this impact would be potentially significant.

Mitigation Measure 3.16-1: Traffic control plan.

NID will require the contractor(s) to prepare a Traffic Control Plan in accordance with Caltrans and/or Nevada County requirements and professional engineering standards prior to construction. The Traffic Control Plan could include the following requirements:

- Emergency services access to local land uses shall be maintained at all times for the duration of construction activities. Local emergency service providers shall be informed of proposed construction activities and identified haul routes.
- Access for local land uses including residential driveways during construction activities shall be maintained.
- Limit traffic delays to no more than 20 minutes.
- Roadside safety protocols shall be complied with, so as to reduce the risk of accident.
- Use of flaggers to direct traffic as necessary.

Significance after Mitigation

Implementation of Mitigation Measure 3.16-1 would reduce impacts associated with construction traffic to a **less-than-significant** level because it would require the emergency access and access for local land uses be maintained.

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Less-than-significant impact. Operation and maintenance activities associated with the new tanks would be similar to or less than existing conditions. Therefore, the project would not result in an increase in long-term trips. The project would not conflict with any congestion management programs. This impact would be less than significant.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No impact. The Alta Sierra Airport, which is a private airstrip is located 2 miles from the project site. However, the project does not propose any activities or structures that would interfere with air traffic patterns. There would be no impact.

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

Less-than-significant impact. Existing site access would remain unchanged with the project, and adequate ingress and egress would be provided for construction equipment. Therefore, the project would not create an incompatible use or hazards because of a design feature. This impact would be less than significant.

e) Result in inadequate emergency access?

Less than significant impact with mitigation incorporated. The project would not result in the reconfiguration of existing roads or the construction of new roads. All existing emergency access ingress and egress points would remain unchanged and adequate emergency access would be maintained subsequent to the

completion of project construction. However, construction vehicles entering and exiting the site could temporarily interfere with emergency access or vehicles. This impact would be potentially significant.

Mitigation Measure 3.16-1: Traffic control plan.

Implement Mitigation Measure 3.16-1 above.

Significance after Mitigation

Implementation of Mitigation Measure 3.16-1 would reduce impacts associated with emergency access to a **less-than-significant** level because it would require the emergency access be maintained during construction.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

No impact. There are no sidewalks or designated bike lanes in the project area. Transit service is provided along Alta Sierra Drive; however, service is only provided on Saturdays. In addition, the project would not result in the reconfiguration of existing roads or the construction of new roads and would not interfere with any bicycle or transit facilities within the project area. Therefore, the project would not conflict with any adopted policies or programs for transit, bicycle, or pedestrian facilities. There would be no impact.

3.17 TRIBAL CULTURAL RESOURCES

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

3.17.1 Environmental Setting

AB 52, signed by Governor Edmund G. Brown, Jr., in September 2014, established a new class of resources under CEQA: "tribal cultural resources" (TCRs). AB 52, as provided in PRC Section 21080.3.1, 21080.3.2, and 21082.3, requires that, within 14 days of determining that an application for a project is complete, the lead agency undertaking CEQA review shall, upon written request of a California Native American Tribe, formally notify the tribal representative that the tribe has 30 days to request consultation. If consultation is requested, it shall begin prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report.

PRC 21074 states the following:

a) "Tribal cultural resources" are either of the following:

   1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

      A) Included or determined to be eligible for inclusion in the CRHR.

      B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

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

b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

AB 52 applies to those projects for which a lead agency had issued a NOP of an EIR or notice of intent to adopt a negative declaration or mitigated negative declaration on or after July 1, 2015. Therefore, the requirements of AB 52 apply to the proposed project.

CONSULTATION EFFORTS

On March 2, 2018, NID sent letters to Colfax-Todds Consolidated Tribes, Nevada City Rancheria Tribal Council, and United Auburn Indian Community (UAIC). A request for consultation was received from UAIC. Copies of record searches conducted for the project were provided to UAIC on March 28, 2018, and a tribal representative from UAIC met with NID to conduct a site visit on May 9, 2018. No TCRs have been identified within the project area, and no concerns related to TCRs were expressed during the site visit. On May 16, 2018, UAIC concluded consultation via email.

3.17.2 Discussion

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

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

and

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code 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?

Less-than-significant impact. There are no known TCRs within the project area. As described above in Section 3.5, the project site is highly disturbed from excavation of the existing reservoir and no unique archaeological resources have been identified on the project site. Because no part of the project site meets the criteria in PRC 5024.1(c) listed above to qualify as a TCR, this impact would be less than significant. However, to further reduce potential impacts to resources inadvertently discovered that could qualify as TCRs, the following mitigation is proposed.

Mitigation Measure 3.17-1: Post ground disturbance site visit.

NID will contact tribal representatives a minimum of 7 days prior to beginning earthwork or other soil disturbing activities. Tribal representatives will be invited to the project site, to view any soil piles, trenches, or other disturbed areas, within the first 5 days of ground disturbing activity. If any tribal cultural resources, such as structural features, unusual amounts of bone or shell, artifacts, human remains, or architectural remains are encountered during this initial inspection or during any subsequent construction activities, work shall be suspended within 100 feet of the find, and the Contractor shall immediately notify NID. NID or its Contractor shall coordinate any necessary investigation of the site with tribal representatives and a qualified archaeologist. As part of the site investigation and resource assessment, the archeologist shall consult with tribal representatives to provide proper management recommendations should potential impacts to the

resources be found by NID to be significant. A written report detailing the site assessment, coordination activities, and management recommendations shall be provided to NID by the qualified archaeologist. Possible management recommendations for tribal cultural resources could include resource avoidance or, where avoidance is infeasible in light of project design or layout or is unnecessary to avoid significant effects, preservation in place or other measures. The Contractor shall implement any measures deemed by NID to be necessary and feasible to avoid or minimize significant effects to the cultural resources, including the use of a Native American Monitor whenever work is occurring within 100 feet of the find.

Significance after Mitigation

This impact is considered less than significant. However, implementation of Mitigation Measure 3.17-1 would further reduce the potential for the project to impact a TCR by requiring preservation options and proper care of significant artifacts if they are recovered.

3.18 UTILITIES AND SERVICE SYSTEMS

	ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII.	**Utilities and Service Systems. Would the project:**				
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b)	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e)	Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	☐	☐	☐	☒
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g)	Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

3.18.1 Environmental Setting

WASTEWATER

Wastewater in the Alta Sierra area is generally provided by individual septic tanks. The project site does not currently have a septic tank and is not served by a public wastewater system.

WATER

NID provides water service in the project area; however, the only water service provided to the project site is to the water storage reservoir. The water storage reservoir is fed immediately by the Osborne Tanks, which are fed by the Loma Rica Water Treatment Plant. The Loma Rica system operates as a gravity fed cascading system (NID 2018).

STORM DRAINAGE

The project site is not currently served by any public stormwater system and no stormwater infrastructure is on-site. Drainage of stormwater runoff occurs naturally within the project site and drains to the west where it enters several culverts near Francis Drive.

SOLID WASTE

The Nevada County Department of Public Works manages the County's solid waste and recycling programs. Waste Management, Inc., contracts with the County to provide solid waste and recyclable materials collection, transfer, and disposal services to its customers, including residential, commercial, and industrial. In accordance with County standards, Waste Management provides recycling services and collects the recycling materials via its curbside collection operations (Nevada County Department of Public Works 2018).

Nevada County does not have an active landfill. All refuse collected at the transfer stations is transported via trailer trucks to the Ostrom Road Landfill in Yuba County, California. The Ostrom Road Landfill is projected to have a remaining life of 50 years at maximum daily throughput of 3,000 tons. Of its 43.5 million cubic yard capacity, an estimated 90 percent was available as of 2007 (CalRecycle 2018).

3.18.2 Discussion

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No impact. Portable restrooms would be used during construction; however, these facilities would be serviced and treated at a wastewater treatment facility in accordance with existing applicable regulations. The project would not generate any additional sources of wastewater and would not exceed wastewater treatment requirements of the Central Valley RWQCB. No improvements are proposed that would require wastewater treatment. There would be no impact.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No impact. The project would include the replacement of an existing water reservoir that is deteriorating. The project would not result in additional water or wastewater treatment facilities nor would expansion of other existing facilities be required. There would be no impact.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No impact. The project site currently does not have a stormdrain system and drains to the west to culverts near Francis Drive. The project would grade the site to continue to drain into the existing culverts. The project would not increase runoff from the project site or require construction of new stormdrain facilities. There would be no impact.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

No impact. This project would not require new or additional water supplies for construction or operation. The project would replace the existing water storage reservoir with concrete water tanks but would continue to be served by NID's existing water entitlements. There would be no impact.

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

No impact. The project site is not directly served by any wastewater treatment facility, nor would wastewater be generated by the project. There would be no impact.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less-than-significant impact. The project would not generate substantial solid waste that would adversely affect any landfills. The project would generate solid waste during construction related to removal of the Hypalon liner; however, materials removed from the existing reservoir would be recycled to the extent feasible. In addition, operation of the project would not result in an increase in solid waste generated. This impact would be less than significant.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

Less-than-significant impact. The disposal of waste as described in f) above would be in compliance with federal, state, and local laws and regulations related to solid waste. This impact would be less than significant.

3.19 MANDATORY FINDINGS OF SIGNIFICANCE

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

Authority: Public Resources Code Sections 21083, 21083.5.

Reference: Government Code Sections 65088.4.
Public Resources Code Sections 21080, 21083.5, 21095; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

3.19.1 Discussion

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

Less than significant with mitigation incorporated. As discussed in the biological resources and cultural resources sections of this Initial Study, the project would result in potentially significant impacts and would have the potential to degrade the quality of the environment. However, adoption and implementation of mitigation measures described in this Initial Study would reduce these individual impacts to less-than-significant levels.

The project site provides potentially suitable habitat for common raptors and bird species, which could be affected by the project. However, implementation of Mitigation Measure 3.4-1 would reduce potential

impacts nesting raptors or bird species to a less-than-significant level by requiring preconstruction surveys and maintaining buffers around any nests found during the surveys.

Although no documented cultural resources are located at the project site, the potential exists to encounter previously undiscovered archaeological resources during construction-related ground disturbing activities. However, adoption and implementation of Mitigation Measures 3.5-1a and 3.5-1b would reduce this potential impact to a less-than-significant level because these measures would require the performance of professionally accepted and legally compliant procedures for the discovery of previously undocumented significant archaeological resources and training of construction workers to identify cultural resources.

No evidence suggests that any prehistoric or historic-era marked or unmarked interments are present within or on the project site. However, there is a possibility that unmarked previously unknown graves of Native American or Euro-Americans could be present within the project site. Potential disturbance of previously undiscovered human remains during project construction would be a potentially significant impact. Implementation of Mitigation Measure 3.5-2 would reduce the project's potential for disturbance of human remains to a less-than-significant level because actions would be implemented to avoid, move, record, or otherwise treat the remains appropriately, in accordance with pertinent laws and regulations.

There are no known TCRs within the project area. As described above in Section 3.5, the project site is highly disturbed from excavation of the existing reservoir and no unique archaeological resources have been identified on the project site. Because no part of the project site meets the criteria in PRC 5024.1(c) listed above to qualify as a TCR, this impact would be less than significant. In addition, implementation of Mitigation Measure 3.17-1 would further reduce the potential for TCRs to be inadvertently affected by the project.

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

Less than significant with mitigation incorporated. Cumulative environmental effects are multiple individual effects that, when considered together, would be considerable or compound or increase other environmental impacts. Individual effects may result from a single project or a number of separate projects and may occur at the same place and point in time or at different locations and over extended periods of time. The purpose of the project is to replace a deteriorating water storage reservoir with water storage tanks. The project would not increase population growth either directly or indirectly beyond what has been planned for in the County General Plan. Implementation of the mitigation measures proposed in this Initial Study would reduce the project's impacts to a less-than-significant level. The project's contribution to environmental impacts would be less than cumulatively considerable.

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

Less-than-significant impact. As identified in this Initial Study, all impacts associated with the proposed project would be temporary and less than significant, except for impacts to biological and cultural resources. Impacts biological and cultural resources would not directly affect human beings and would be reduced to a less-than-significant level with mitigation. Therefore, implementation of the proposed project would not result in substantial adverse effects on human beings, either directly or indirectly. This impact would be less than significant.

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