Final Environmental Assessment

Incline Village General Improvement District
Effluent Storage Facility Project

November 3, 2023

Prepared by:

U.S. Army Corps of Engineers
South Pacific Division
Sacramento District
Environmental Resources Branch

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Acronyms and Abbreviations

Acronym & Abbreviation	Definition
AADT	Annual Average Daily Traffic
ADI	Area of Direct Impact
AII	Area of Indirect Impact
APE	Area of Potential Effect
APN	Assessor's Parcel Number
AQMD	Air Quality Management Division
AQS	Air Quality System
ARA	Architectural Resource Assessment
BMPs	Best Management Practices
CAA	Clean Air Act
CDP	Census Designated Place
CE	Critically Endangered
CEQ	White House Council on Environmental Quality
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
cfs	Cubic Feet per Second
CNEL	Community Noise Equivalent Level
CO	Carbon Monoxide
CO_{2eq}	Carbon Dioxide Equivalents
Code	TRPA Code of Ordinances
dBA	A-weighted decibel
dbh	Diameter at Breast Height
EA	Environmental Assessment
EJScreen	Environmental Justice Screening and Mapping
ESA	Endangered Species Act
ETCC	Environmental Threshold Carrying Capacity
FONSI	Finding of No Significant Impacts
FPL	Federal Poverty Level
FR	Federal Register
GHG	Greenhouse gas
HDPE	High Density Polyethylene
HTRW	Hazardous, Toxic, and Radioactive Wastes
IVGID	Incline Village General Improvement District
IVTS	Incline Village Transfer Station
LCT	Lahontan Cutthroat Trout
LTBMU	Lake Tahoe Basin Management Unit
MBTA	Migratory Bird Treaty Act
MG	Million Gallons
MHHI	Median Household Income
MM	Mitigation Measure
NAA	Non-Attainment Area
NAAQS	National Ambient Air Quality Standard
NAC	Nevada Administrative Code

Acronym & Abbreviation	Definition
NDEP	Nevada Division of Environmental Protection
NDOW	Nevada Division of Wildlife
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NNHP	Nevada Natural Heritage Program
NO_2	Nitrogen Dioxide
NRHP	National Register of Historic Places
NRS	Nevada Revised Statute
NVCRIS	Nevada Cultural Resource Information System
O_3	Ozone
ONRW	Outstanding Natural Resource Waters
Pb	Lead
PM_{10}	Particulate Matter less than or equal to a nominal 10 microns in aerodynamic diameter
$PM_{2.5}$	Particulate Matter less than or equal to a nominal 2.5 microns in aerodynamic diameter
PPM	Parts Per Million
RCI	Resource Concepts, Inc.
RCRA	Resource Conservation and Recovery Act
SCADA	Supervisory Control and Data Acquisition
SCP	Species of Conservation Priority
SEZ	Stream Environment Zone
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SIS	Special Interest Species
SNWLC	Sierra Nevada Wood & Lumber Company
SNYLF	Sierra Nevada Yellow-legged Frog
SO_2	Sulfur Dioxide
SR	State Route
TEPCS	Threatened, Endangered, Proposed, or Candidate Species
TES	Threatened and Endangered Species
TMDL	Total Maximum Daily Loads
TRPA	Tahoe Regional Planning Agency
US	United States
USACE	United States Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VMT	Vehicle Miles Traveled
WCHD	Washoe County Health District
WRRF	Wastewater Resource Recovery Facility

1 Introduction

1.1 Proposed Action

Pursuant to the National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. § 4321, et seq.), this environmental assessment (EA) has been prepared to evaluate the environmental effects of constructing a 2 million-gallon (MG) effluent storage facility. The EA discusses the environmental conditions of the project area, evaluates the environmental effects of the Proposed Action alternative on these conditions as compared to the No Action alternative, and identifies measures to avoid or minimize any environmental effects, where practicable.

This EA was prepared by Resource Concepts, Inc. on behalf of the U.S. Army Corps of Engineers, Sacramento District (USACE), the Federal lead agency under NEPA. Incline Village General Improvement District (IVGID) is the non-federal sponsor. This EA has been prepared in accordance with NEPA and the Council on Environmental Quality's (CEQ) Regulations (40 C.F.R. 1500-1508), as reflected in the Corps Engineering Regulation 200-2-2.

1.2 Project Area

The IVGID Effluent Storage Facility project area is located on IVGID private property in Incline Village, Washoe County, Nevada, approximately 1.5 miles east of the city center (Figure 1). The project site is approximately 2.5 acres and located within the larger 82-acre Wastewater Resource Recovery Facility (WRRF) parcel. The site is accessed from Nevada State Route 28 (SR-28) via Sweetwater Road.

The project site is located within the Mill Creek watershed in the northeast portion of the Lake Tahoe Basin. The elevation ranges from 6,350 feet on Sweetwater Road to 6,500 feet at the highest edges of Pond #1. The watershed is characterized by 30 – 50 percent slopes with soil characteristics described as very stony and gravelly loamy coarse sand. The surrounding vegetation is generally dominated by Jeffery pine forest. Figure 2 provides an overview of the WRRF.

The proposed effluent storage tank is located in Washoe County entirely on IVGID owned property within the Washoe County Tahoe Plan Area. The treatment plant, including the effluent tank, is a "public service center" that is a permissible special use within the community plan.

Figure 1. Project Location and Vicinity Map.

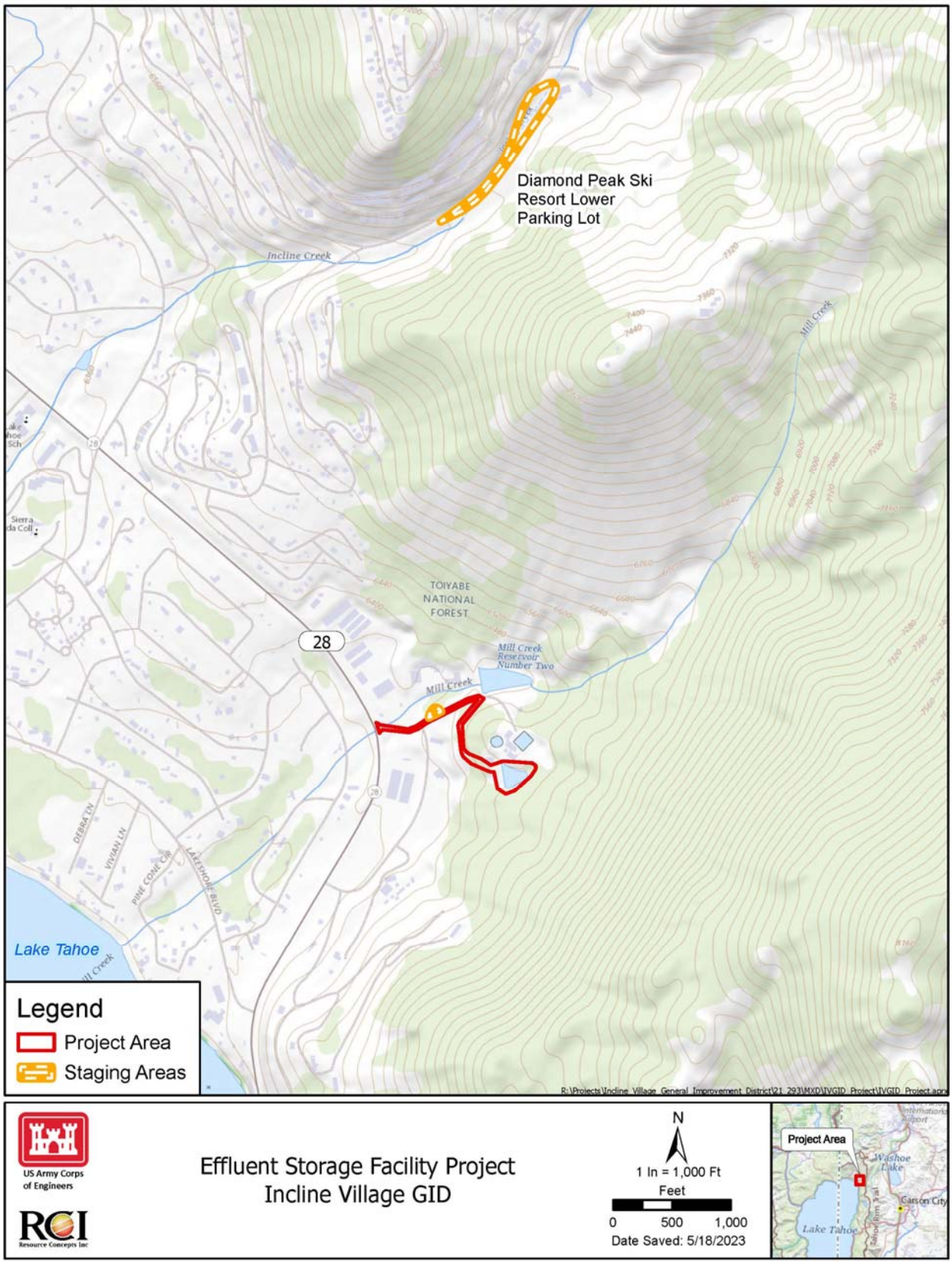


Figure 2. Project Overview Map.

1.3 Authority

Authorization for the construction of the Proposed Action is provided by the USACE under Section 595 of the Water Resource Development Act of 1999, Public Law 106-53, as amended, which allows the USACE to provide design and construction assistance to non-federal, publicly owned entities in rural Montana, Idaho, and Nevada for water-related environmental, resources protection, and development projects. Eligible projects include wastewater treatment and related facilities, and water supply and related facilities. Following project completion, the non-federal sponsor, IVGID, assumes full responsibility for operation and maintenance.

1.4 Project Purpose and Need

The WRRF provides wastewater treatment and export for the town of Incline Village, Crystal Bay, and surrounding Nevada state parks. Critical to the operation of the WRRF is the ability to temporarily store sufficient effluent on-site to allow for routine maintenance and repair of the effluent export pipeline and to provide storage for foreseeable emergencies. Current effluent storage capacity at the WRRF is insufficient, and the lack of adequate storage would require temporary shutdown of the WWRF and could result in the discharge of pollutants to surface waters, including Lake Tahoe, that would adversely affect water quality and aquatic wildlife habitat.

The purpose of the proposed project is to construct a permanent structure that can adequately store sufficient effluent, that would:

- Allow continued daily operation of the WRRF and in-line effluent pump station;
- Allow IVGID to perform routine maintenance and repairs on the pipeline as needed;
- Provide sufficient storage during emergencies; and
- Meet current Nevada Division of Environmental Protection (NDEP) permit conditions.

1.5 Background

IVGID is a small public utility that provides water and wastewater service for a year-round population of approximately 10,000 residents, in the communities of Incline Village and Crystal Bay as well as the Nevada State Parks (e.g., Sand Harbor, Spooner Lake, and Memorial Point) located in the Lake Tahoe Basin. The WRRF treats an average of 800,000 gallons per day, and up to 1.6 MG per day during peak summer season for these communities. Wastewater is treated at the WRRF in Incline Village, Washoe County, Nevada, and all secondary treated effluent is exported out of the Tahoe Basin to a 900-acre wetland disposal site located approximately six miles southeast of Carson City, Nevada.

The WRRF operates under an Individual Discharge Permit issued by the NDEP, which is currently under review for renewal. Historically, a critical component of WRRF has been two

unlined effluent storage basins: Mill Creek Effluent Pond #1 (Pond #1) and Mill Creek Effluent Pond #2 (Pond #2), which were both constructed in 1962 for the purpose of providing temporary effluent storage when the export line is out of service for major repairs, maintenance projects, or for emergency purposes. However, since 1962, NDEP regulations have changed and currently prohibit the user to discharge effluent to an unlined pond for emergency effluent storage. In order to renew their discharge permit, IVGID must bring the WRRF into compliance with current regulations. The Proposed Action serves to provide an approved effluent storage facility in compliance with current NDEP regulations.

1.6 Decision Needed

The Sacramento District Commander must decide whether the Proposed Action alternative qualifies for a Finding of No Significant Impact (FONSI) under NEPA or whether an environmental impact statement (EIS) must be prepared due to potentially significant environmental impacts.

2 Alternatives

Analysis of potential storage alternatives and suitable materials were summarized in detail in Pond #1 Effluent Storage Alternatives – Final Recommendation (Jacobs Engineering 2021). To review the options available to meet the effluent storage requirements, a Design Criteria and Analysis Technical Memo for Pond #2 was completed by Jacobs Engineering (September 2021) with the decision to install a high-density polyethylene (HDPE) liner within Pond #2. However, further analysis of the existing dam and review by NDEP Division of Water Resources – Division of Dam Safety determined that a full structural/hydrologic analysis of the dam would be needed. Lining Pond #2 was deemed prohibitive based on the overall project delay that would be needed to design and permit a new dam, and the costs associated with the construction and increased coverage within a stream environment zone (SEZ) for the installation of a liner. In order to comply with permit conditions, provide sufficient effluent storage for repair and maintenance of the export line, and for use during emergencies, IVGID is proposing the construction of a 2 MG pre-stressed concrete tank to be built adjacent to the existing WRRF.

In selection of the Proposed Action, the following additional alternatives were considered and dismissed from further evaluation:

1) **HDPE Pond Liner.** Lining of Pond #1 or Pond #2 basins with HDPE geomembrane was initially considered for use in effluent storage. The lining of either pond would require ongoing annual inspections and maintenance, costly modifications to the existing dams to reduce seepage and meet current standards of Nevada's Dam Safety Program, Division of Water Resource, and have a limited life span of 20-25 years. Additionally,

lining of Pond #2 could require significant costs (approximately 3.9 million dollars) to mitigate for 1.5 acres of new impermeable coverage within a SEZ. For these reasons, installation of an HPDE liner within either pond was dropped from further consideration.

2) **Construction Access through WRRF.** The existing (paved) access routes through the WRRF site are too narrow (approximately 8-10-feet wide) to accommodate the turning radius of heavy equipment (including crane trucks, transport/dump/concrete trucks, etc.) necessary for construction of the tank.

   The access road from the WRRF to Pond #1 is too steep, approximately 18% - 20% grade. There is no available site area to reasonably allow safe maneuvering or turn-around movements and all exiting heavy vehicles would require reverse movements through the entire WRRF site. Further, active construction traffic through the treatment plant represents a significant health and safety risk to both IVGID and subcontractor staff. Construction access around the WRRF site would not be feasible.

3) **Construction Access around the WRRF.** The other alternative through the eastern property boundary would not only require adjacent property owner authorization and potential easements; the construction access would still require significant earthwork, tree clearing and disturbance in steep slopes and low land capability lands comparable to the proposed project grading.

2.1 No Action

NEPA requires the Lead Agency to present a No Action alternative that establishes the baseline conditions against which the action alternatives are compared. Under the No Action alternative, USACE would not fund construction of a 2-million-gallon pre-stressed concrete tank for effluent storage, and no new storage tank would be constructed. On-site storage of effluent would be limited to the existing 0.5-million-gallon steel tank and the 0.4-million-gallon capacity aeration basins. Combined, these facilities have approximately 6-8 hours of storage based on average daily flow of 800,000 gallons per day, which is inadequate to meet the required storage needed for repair and maintenance activities or provide sufficient coverage during emergency shutdowns of the export line. The lack of adequate storage is in non-compliance of IVGID's current NDEP discharge permit. In emergency situations or with prolonged shut down of the export pipeline, the lack of adequate storage would require discharge of effluent water into the unlined ponds, potentially leading to the discharge of pollutants to groundwater or surface waters that drain to Lake Tahoe and adversely affecting water quality within the lake.

2.2 Proposed Action – 2 MG Pre-stressed Concrete Tank

For the protection of water quality within the Lake Tahoe Basin and in order to comply with conditions of the IVGID's NDEP permit for the operation of the WRRF, IVGID is proposing

to construct a 2 MG pre-stressed concrete tank (Proposed Action). Due to material shortages, if needed, a welded steel tank will be used in place of concrete. If steel needs to be used there are no changes to impacts other than an increase in the overall cost due to required annual maintenance. The proposed effluent storage tank would be located within the current structural footprint of IVGID's Pond #1 next to the WRRF. The Pond #1 dam would be decommissioned, and the site graded to meet a similar elevation to that of the WRRF. The diameter of the tank would be approximately 105 feet with a height of approximately 45 feet, which is sufficient to accommodate approximately 48 hours of average peak effluent flow. The existing access road will be temporarily modified for use during construction.

2.2.1 Elements of the Proposed Action

Specifically, the Proposed Action consists of the following elements:

1) Installation and maintenance of construction BMPs.
2) Clearing, grubbing and tree removal.
3) Grading and paving of temporary access road.
4) Decommissioning of existing dam, site grading and drainage.
5) Construction of tank pad and foundation.
6) Construction of pre-stressed concrete tank.
7) Installation of piping and valves and Supervisory Control and Data Acquisition (SCADA) system.
8) Final site stabilization and access road rehabilitation.

Best Management Practices (BMPs)

Prior to the start of construction, the contractor will install appropriate temporary BMPs in accordance with the Tahoe Regional Planning Agency (TRPA) BMP Handbook and as required by conditions of the TRPA Public Facility Permit and the Nevada Stormwater General Permit for Construction Sites Storm Water Pollution Prevention Plan (SWPPP). Site boundary fencing will be installed to establish a "no access area" to minimize disturbance to surrounding vegetation. Protective fencing will be placed around trees to remain on-site to protect from damage from construction equipment. Erosion and sediment controls, including but not limited to filter fences, fiber rolls, and vehicle tracking control, will be installed to control erosion and sediment for all temporarily disturbed areas and staging areas. Concrete washout basins will be installed in designated areas away from traffic routes as specified in the SWPPP. Any on-site chemicals or other hazardous materials will be stored with appropriate containment. Throughout construction, temporary erosion and sediment control devices will be inspected at a minimum of every seven days and maintained continuously. As required by the TRPA permit for Public Services, BMP installation will be inspected by TRPA staff for proper installation prior to the start of soil disturbance.

Clear, grubbing and tree removal

Initial site clearing of trees, shrubs, and boulders within the proposed access road and around the tank site is the next phase of construction. The access route will be widened to 16 feet with one-foot shoulders on each side, the minimum width necessary to accommodate construction equipment. Boulders will be salvaged and stored on-site to be used as part of final slope stabilization to the extent practicable. Thirty-two trees ranging in diameter from 14 to 29 inches and understory shrubs will be cut, hauled off-site, and disposed of in a TRPA approved location or outside the basin. Trunks and limbs may be salvaged to use for temporary and long-term soil stabilization on disturbed slopes.

Grading and paving of temporary the access road

Access to the tank site is via an approximately 16-foot-wide dirt road from Sweetwater Road. The initial 90 feet of the access road will be paved near the intersection with Sweetwater Road. Approximately 350 feet of access road will be widened and covered with three inches of aggregate base (Figure 3). The excavated material generated from widening of the access road will be used as fill in the existing pond and on the downslope road embankment to achieve on-site balance of material to the extent practical. It is anticipated that little to no excess soils will be hauled off-site for disposal.

The eastern side of the access road is sloped at 12% and will be paved approximately 400 feet. Paving will consist of three inches of asphalt concrete over six inches of aggregate base. A shoulder dike of 120 feet and approximately 200 feet of rock lined infiltration trench will be constructed along the upslope side of the road to direct sheet flow from the adjacent mountain slope away from the road and slow flows to allow for infiltration. The infiltration trench terminates at an 18-inch reinforced concrete pipe culvert under the access road. The culvert outlet is fitted with a flared end section and rip-rap energy dissipater.

Post-construction of the tank, all of the asphalt and aggregate base materials will be removed and the road scarified to reduce impervious ground cover. Asphalt and base materials will be hauled off-site to an approved disposal site. Large boulders will be placed at the construction access point at Sweetwater Road to prevent regular or public use. Disturbed areas would be stabilized with mulch cover and erosion control blankets following construction.

Decommissioning existing dam, site grading and drainage

Installation of the concrete tank and pad in the proposed location requires decommissioning of the Pond #1 dam and regrading the existing Pond #1. Material from the dam embankment will be removed from the top down to maintain stability throughout the process. The estimated grading quantities for the construction access road is 510 cubic yards of cut and 2,930 cubic yards of fill. To create the tank pad within Pond #1 requires 8,305 cubic yards of cut and 5,985 cubic yards of fill. The overall project quantities are 8,815 cubic yards of

cut and 8,915 cubic yards of fill (Figure 4). The native earth material excavated from the site will be reutilized to the extent possible on-site. Any remaining excess will be minimal, and if needed, off hauled out of the basin to an approved commercial facility. Two 12-inch riprap lined infiltration trenches will be constructed to capture and route stormwater runoff around the tank and discharge at a point in a similar location as the current Pond #1 overflow discharge. Swales will be constructed from class 300 riprap over geotextile with 2:1 slopes and range in depth from 12-inches minimum at the north side of the tank where minimal stormwater runoff from the plant is anticipated up to 42-inches maximum prior to discharge of the overall basin. The constructed swale includes a rock line energy dissipater at the terminus prior to discharging flow onto upland forest where it will infiltrate. The rock lined swales have been sized to accommodate the volume of a 20-year one hour storm event of one inch per hour in accordance with TRPA Code 60.4.6.A.1.

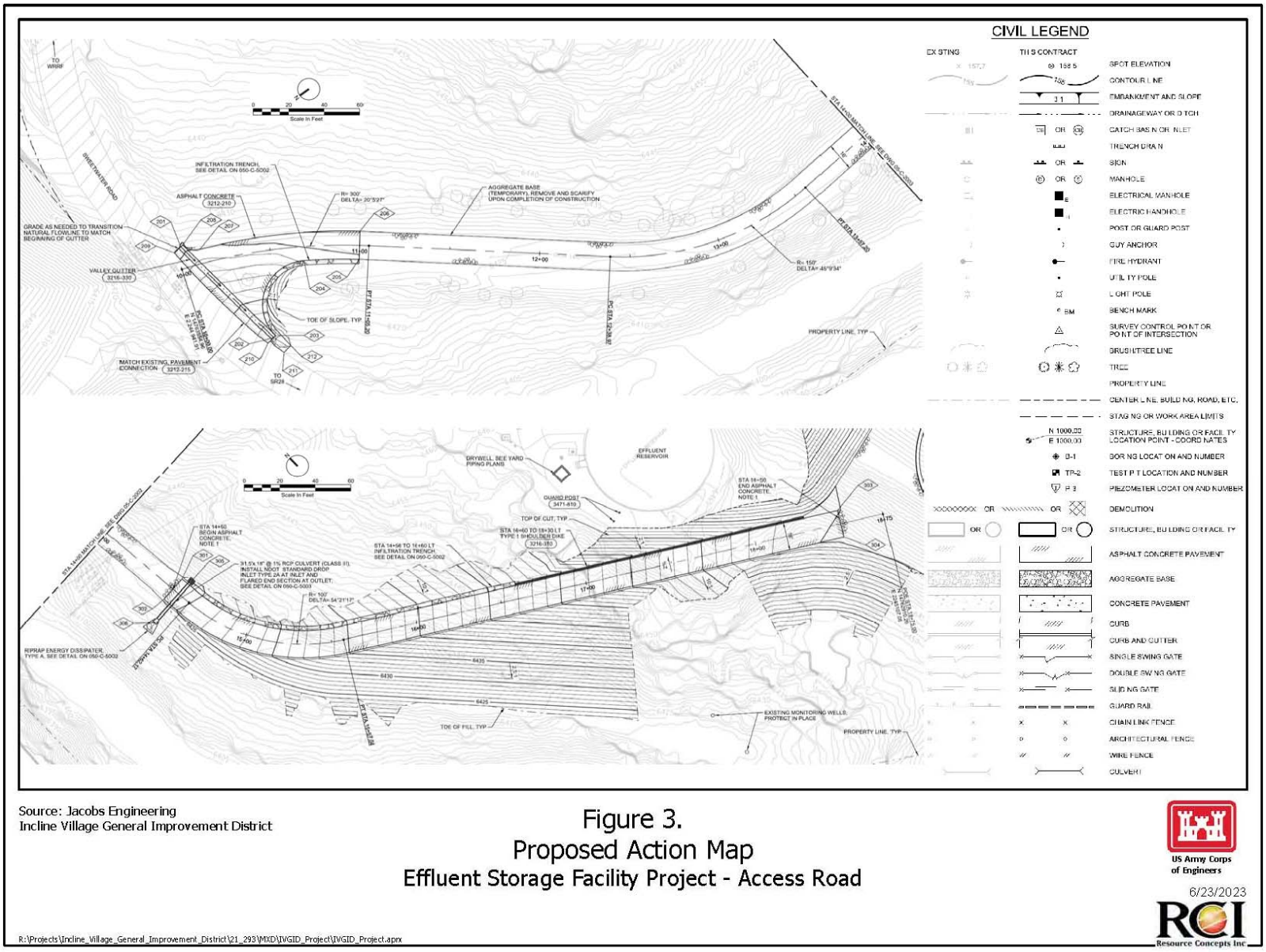
Construction of the tank pad and foundation

The structural foundation of the tank would be a level, compacted pad of aggregate base at a minimum thickness of six inches. The tank foundation will be excavated approximately four feet below the WRRF discharge location in order to provide the required capacity available under gravity flow conditions. A riprap lined drainage swale will be constructed around the upland perimeter of the pad to capture and divert sheet flow away from the tank. The pad will be sloped at five percent away from the tank in all directions and drain to the constructed swale.

Construction of pre-stressed concrete tank

The concrete foundation and perimeter footings will be poured on-site. The floor of the tank will be flooded for approximately two weeks to cure the concrete. The tank walls and roof panels will be poured into forms and pre-stressed either on-site or in the staging area located at the lower Diamond Peak Ski Resort and hauled to the site for assembly (see Figure 1). The walls and dome panels will be sprayed with a poly sheet cover over each panel. The concrete panels will be allowed to cure for a minimum of 28 days. Approximately 600 cubic yards, or approximately 70 truckloads, of concrete will be needed to construct the tank. Concrete washout stations will be located on-site and away from the access road and drainages. Washouts will be sized appropriately and emptied regularly to completely contain all concrete waste generated. Once constructed, the tank will be painted a dark matte color approved by TRPA to better camouflage with the surrounding slopes.

Figure 3. Effluent Storage Facility-Access Road.



Source: Jacobs Engineering
Incline Village General Improvement District

Figure 3.
Proposed Action Map
Effluent Storage Facility Project - Access Road

US Army Corps of Engineers

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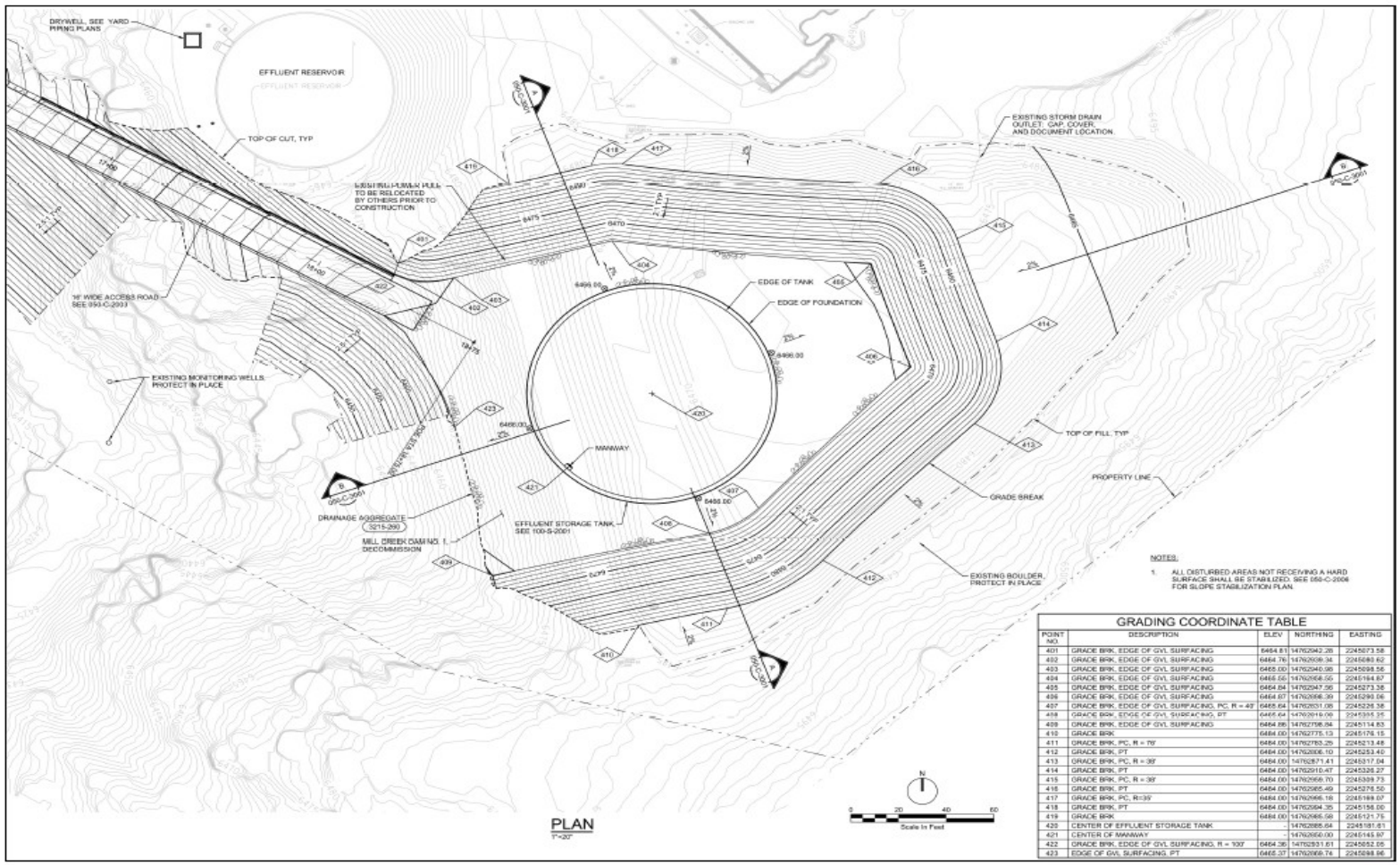
Figure 4. Effluent Storage Facility-Tank.



Source: Jacobs Engineering
Incline Village General Improvement District

Figure 4.
Proposed Action Map
Effluent Storage Facility Project - Tank
Incline Village GID

US Army Corps of Engineers

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Installation of necessary piping and valves and SCADA system

The WRRF treats wastewater and discharges effluent from the treatment plant through a 24-inch gravity fed pipeline that will connect to the new two MG storage tank. The proposed tank will be connected to the existing 0.5 MG steel tank via a 16-inch buried effluent line, which will be used as a "wet well" to equalize the flowrates in and out of the new storage tank. The existing 0.5 MG steel tank will be refurbished with a port and valve vault to connect the new tank and allow treated effluent to be pumped between the existing and proposed tanks in situations where storage capacity is in excess of standard WRRF operations.

Final site stabilization

Final slopes of 2.5:1 or greater located along the construction access road and surrounding the storage tank will be stabilized through incorporation of scattered boulder groupings reset into the soil and installation of an erosion control blanket over a four-inch layer of mulch/pine needle blend. The slopes less than 2.5:1 will be stabilized with a layer of a four-inch mulch and pine needle blend. The natural slope stabilization will blend with the existing surrounding slopes with the incorporation of boulder groupings and will be more aesthetically consistent with surrounding landscape.

2.2.2 Construction Staging and Equipment

Primary staging of equipment and materials will be located within the existing road and Pond #1 during active construction. Additional on-site staging will be located within a paved pullout on the north side of Sweetwater Road as shown in Figure 2. A secondary offsite staging area may be used in the lower parking lot at Diamond Peak Ski Resort (Figure 1). This large, paved staging area may be used for staging or laydown areas. All staging areas are located within areas of existing disturbance. Sediment controls will be installed in accordance with the TRPA BMP Handbook and illustrated in the SWPPP.

Standard construction equipment includes motor graders, loaders, forklifts, cranes, and haul trucks. A mobile fuel truck will be on-site to refuel equipment. All fuel and hazardous materials used in the project area will be properly handled and stored in accordance with TRPA and SWPPP BMP requirements.

2.2.3 Construction Schedule

The Proposed Action is anticipated to take approximately 24 weeks and will be completed in one construction season. Pending project approvals, construction is anticipated to begin no later than May 1, 2024, and completed by October 15, 2024. Hours of construction will occur between 8:00 am to 6:30 pm in compliance with TRPA Noise Ordinance. Construction schedule and hours of operation may be modified upon approvals from TRPA and Washoe County.

2.2.4 Long Term Operation and Maintenance

Under current long-term operation planning forecasts, the tank would only receive effluent in the event of an emergency or if the export line is taken out of service for repairs. These events are anticipated to be infrequent (e.g., once every 5 years or less). The tank will be inspected annually but is anticipated to require little routine maintenance.

3 Affected Environment and Environmental Consequences

This section provides an assessment of environmental resources within the project area and surrounding potential area of effect and analyzes potential impacts to the environment that could occur from implementation of the Proposed Action or alternatives. Significance thresholds used in this EA incorporate federal, state, and local requirements to evaluate effects of the Proposed Action and No Action alternatives that could "significantly affect the quality of the human environment." A summary of the resources considered in this EA, levels of analysis, and their respective sections are provided in the table below:

Table 3-1. Environmental Resources Analyzed in Environmental Assessment.

Resource	Level of Analysis	Location in this EA
Greenhouse Gases and Climate Change	*Not considered in detail*	Section 3.1.1
Recreation	*Not considered in detail*	Section 3.1.2
Land Use	*Not considered in detail*	Section 3.1.3
Prime or Unique Farmlands	*Not considered in detail*	Section 3.1.4
Visual Resources	*Not considered in detail*	Section 3.1.5
Air Quality	*Discussed in detail*	Section 3.2
Biological Resources	*Discussed in detail*	Section 3.3
Cultural Resources	*Discussed in detail*	Section 3.4
Hydrology and Water Quality	*Discussed in detail*	Section 3.5
Noise	*Discussed in detail*	Section 3.6
Socioeconomics and Environmental Justice	*Discussed in detail*	Section 3.7
Traffic	*Discussed in detail*	Section 3.8

The analysis of effects to environmental resources assumes implementation of project activities consistent with all applicable federal laws and executive orders. The federal laws and executive orders are discussed at the beginning of the relevant resource sections.

3.1 Environmental Resources Not Considered in Detail

Initial evaluation of the effects of the project indicated that there would likely be little to no effect on several resources. These resources are discussed below to add to the overall understanding of the proposed action and project area.

3.1.1 Greenhouse Gases and Climate Change

The Council on Environmental Quality (CEQ) issues a final rule which restores the requirement that federal agencies evaluate all the relevant environmental impacts of the decisions they are making, including those associated with climate change (Whitehouse 2022). Greenhouse gases (GHGs) are composed primarily of carbon dioxide (CO2), methane (CH4), nitrous oxide (NOx), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluorides. The primary GHG in Nevada is CO2, which accounted for more than 84% of gross GHG in 2020. In Nevada, the largest emitter of GHGs is transportation, followed by the electrical generation sector (NDEP 2022). GHGs have the potential to adversely affect the environment by contributing to global climate change.

In order to allow for a more universal comparison for GHGs released by different projects, various GHGS such as CO2, CH4, and NOx are often combined into carbon dioxide equivalents (CO2eq). By using the global warming potential of each gas as it relates to carbon dioxide, as found in CFR Title 40 Chapter I Subchapter C part 98 Table A-1 "Global Warming Potentials". Although the scientific community largely agreed on GHGs as a major driver of climate change and how to use CO2eq to compare the total GHG emissions from various projects, CEQ has not yet issued a threshold for determining whether mobile source emissions from a project would result in a significant impact. Significant threshold standards for analyzing GHG emissions for transportation and construction emissions sources have not by identified by the TRPA, NDEP or the Washoe County Health District Air Quality Management Division.

No Action Alternative – Under the No Action alternative, no short-term construction activities would occur and there would be no change in long term operation of the WRRF and effluent storage ponds that would generate GHG emissions. As the current WRRF operations are in compliance with existing applicable plans, policies, and rules regulating emissions of GHGs and are not exceeding any thresholds of significance, the No Action alternative would have no effect on GHGs.

Proposed Action Alternative – Under the Proposed Action alternative, temporary construction activities that would contribute to GHG emissions due to fuel combustion from use of haul trucks and construction equipment. Construction equipment will incorporate emissions-reducing technology such as specific fuel economy standards. The emissions from the Proposed Action would be very small compared to the total constant output of the surrounding urban area, such as Washoe County, which has an output from July 2022 to July 2023 of 15,000 metric tons from just fuel and electricity (nZero 2023). See Table 3-2 for GHG emission analysis, results are from Sacramento Metropolitan Air Quality Management District's Road Construction Emissions Model.

Table 3-2. Greenhouse Gas Emissions Analysis Results.

GHG Emissions and Regulatory Thresholds	Totals
Total CO_{2eq} (Metric Tons)	37.84
Washoe County GHG Threshold (CO_{2eq}) (Metric Tons)	None
Project Exceeds Washoe County GHG Threshold?	No
CEQ Yearly GHG Threshold (CO_{2eq}) (Metric Tons)	None
Project Exceeds CEQ Yearly GHG Threshold?	no

The Proposed Action will adhere to Washoe County engine idling regulations, which limit the idling of diesel engines to less than 15 consecutive minutes (NAC 445B.576). The temporary nature of the activities and implementation of reduction measures mandated within county permits and TRPA Code would result in less than significant increase in GHG emissions and impact to global climate change. Long-term operation of the storage tank would slightly increase GHGs emission due to maintenance required by the Proposed Action, but this increase would be insignificant to the current emissions of normal maintenance operations.

3.1.2 Recreation

The Lake Tahoe area is known worldwide as a destination for tourism and outdoor recreation. Incline Village is located at the northeast shore of Lake Tahoe and offers many recreational opportunities both as a community and in the surrounding mountain slopes. The project area is surrounded by the Humboldt-Toiyabe National Forest, which is used for a variety of passive and active recreation. There are several nearby trails within the Humboldt-Toiyabe National Forest that have substantial traffic during summer and fall months, they include the Tyrolean Downhill, Tunnel Creek, and Incline Flume Trails. These official trails are located on Forest Service land greater than one mile outside of the project area. Other local recreation facilities include the Incline Village Recreation Center, University of Nevada, Reno at Lake Tahoe campus, Diamond Peak Ski Resort, and the Tunnel Creek Café and trailhead parking.

No Action Alternative – Under the No Action alternative, no temporary construction would occur and the use of the effluent storage pond in emergency situations would remain the same. The No Action alternative would not create changes to recreational opportunities in surrounding areas or affect access to nearby trails. The No Action alternative would have no impacts to recreational resources.

Proposed Action Alternative – The project area is located entirely on privately owned land and public use is prohibited. There are no recreational opportunities within or accessed through the project area. Project construction and long-term operation activities will not impact access to nearby trails or other recreational activities. A secondary construction staging area will be located in the lower parking lot of Diamond Peak Ski Resort; haul trucks may temporarily

impact traffic to Diamond Peak, but no impacts will occur to recreational activities due do construction being scheduled out of peak season. For these reasons, the Proposed Action would not result in any changes to recreational resources.

3.1.3 Land Use

The project area is located within the Washoe County Tahoe Area Plan, Ponderosa Ranch regulatory zone. The plan provides the regulatory framework for future development in the portion of Washoe County that is within the Lake Tahoe Basin (TRPA 2021). The Washoe County Tahoe Area Plan designates the project area as "mixed-use", which allows for development of commercial, public service, and light industrial uses.

No Action Alternative – Under the No Action alternative there would be no changes to the existing effluent storage ponds and the project would remain a public service which is an allowable use under the County land use plan.

Proposed Action Alternative – Per the Washoe County Development Code Section 110.220.165, Local Public Health and Safety Facilities are considered a Special Use in the Ponderosa Ranch regulatory zone. The Proposed Action is consistent with Washoe County and TRPA land use plans. The Proposed Action alternative will have no significant impacts on land use.

3.1.4 Prime or Unique Farmlands

Prime farmland is land with physical and chemical properties that is capable of producing food, feed, forage, fiber, and oilseed crops; unique farmland is land other than prime farmland capable of sustaining high yields when managed using appropriate farming practices (7 C.F.R. § 657).

No Action Alternative – There are no prime or unique farmlands present within the project area, therefore, the No action alternative will have no effect on these resources.

Proposed Action Alternative – The project area is located on a hillslope with an average gradient of 15-30 percent with on-site soils that are not identified by the Natural Resource Conservation Service as being suitable for prime farmland. The Proposed Action has no impact on prime or unique farmlands.

3.2 Air Quality

This section describes air quality as it pertains to the existing site conditions and the potential short-term and long-term effects from the No Action and Proposed Action alternatives. Special consideration is given to mobile sources related to emissions generated by heavy duty equipment for construction, dust generated from surface grading and excavation, and the potential creation of stationary sources of emission with the addition of an effluent storage tank.

3.2.1 Affected Environment

Environmental Setting

The project site is located in Incline Village, Washoe County, Nevada within the Lake Tahoe air basin. An air basin is a geographic area that is surrounded or partially surrounded by mountains that hold air and pollutants in the absence of wind. Lake Tahoe sits within a geographic bowl surrounded by the Sierra Nevada mountains creating a natural boundary on all sides, where air can become trapped, especially with thermal inversions, and prevailing winds from the west and southwest are common for this region.

Hydrographic areas, as defined by the Nevada Division of Water Resources, are used to delineate air quality planning regions and represent regulatory boundaries in the State of Nevada. The Proposed Action is located within Hydrographic Area 90: Lake Tahoe Basin (HA 90). Within this boundary, air quality is monitored by Washoe County Health District's (WCHD) Air Quality Management Division (AQMD) and the TRPA. According to the AQMD, HA 90 of Washoe County meets the requirements for being in *attainment* of the National Ambient Air Quality Standards (NAAQS) or is not monitored for a pollutant and is thus qualified as "unclassifiable" (USEPA 2022). The 2019 TRPA Threshold Evaluation found that regional air quality in the Lake Tahoe Basin either met or was significantly better than the TRPA adopted ambient air quality thresholds.

The identification of sensitive receptors is important for qualifying potential impacts of air pollution. Sensitive receptors are buildings or areas that are used by children, the elderly, and people with illnesses who have a higher risk of health impacts from air pollution. The nearest sensitive receptors relative to the project area boundary includes residential houses (0.16 miles), a church (0.70 miles), a community college (0.73 miles), and medical offices (1.15 miles).

Regulatory Setting

Air quality in the Washoe County (Nevada) portion of the Lake Tahoe air basin (HA 90) is managed at federal, regional, and county levels.

Federal Regulations

The U.S. Environmental Protection Agency (USEPA) is responsible for implementation of the Clean Air Act (CAA) (42 U.S.C. § 7401 et seq., 1970), through which the NAAQS for six criteria pollutants were established (40 C.F.R. § 50). Criteria pollutants include particulate matter ($PM_{2.5}$ & PM_{10}), ozone (O_3), carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), and lead (Pb). For the six criteria pollutants, primary and secondary air quality standards have been established to protect against impacts to the environment and public welfare. Regions are either designated as being in *attainment*, *nonattainment*, or *maintenance* of the NAAQS. The state or designated area must submit a State Implementation Plan (SIP) to demonstrate attainment, maintenance, and enforcement of these standards.

Hazardous Air Pollutants (HAPs) are a federally recognized set of airborne pollutants that at trace amounts pose a hazard to human health and the environment. HAPs are also used to indicate the quality of ambient air. Examples of mobile sources of HAPs include cars, trucks, and heavy machinery; contact with this contamination by breathing, consuming, or direct contact can cause short-term and long-term health effects. Sources of HAPs within the vicinity of the proposed effluent storage tank include Sweetwater Road and SR-28.

Section 176I(4) of the CAA establishes the General Conformity Rule, which ensures that actions taken by federal agencies do not impede the state's ability to attain or maintain NAAQS. One provision of the General Conformity Rule is that all areas that are in "nonattainment" or are "maintenance areas" must comply with the SIP, unless the proposed action qualifies as a federally exempt action. Exempt actions include actions associated with emissions that are below the specified *de minimis* threshold requirements (40 C.F.R. § 93.153).

Tahoe Regional Planning Agency (TRPA[) Regulations

The TRPA has adopted Environmental Threshold Carrying Capacities (ETCCs) for ambient air quality of the NAAQS, to reflect regional goals for maintaining air quality standards established in the TRPA Regional Plan Land Use Element, Air Quality Subelement. The TRPA Code of Ordinances establishes regulations to implement the regional air quality goals and policies that are provided in Chapter 65: Air Quality/Transportation. Air quality criteria for both the NAAQS, upheld by the AQMD, and the TRPA ETCCs are listed in Table 3-3.

The TRPA has specific standards to determine significant impacts from mobile sources of a project; these are provided in the TRPA Code of Ordinances, Section 65.2.3 (E). A project is determined to be screened from additional transportation impact assessment if it produces low vehicle miles traveled (VMT), (i.e., less than 715 VMT when greater than a half mile from a city center).

Table 3-3. Emission Threshold Requirements for Criteria Pollutants.

Criteria Pollutant	Primary/Secondary	Averaging Time	NAAQS Level	NAAQS Requirements	TRPA ETCC
Carbon Monoxide (CO)	Primary	8-hours	9 ppm (10,500 µg/m^3)	Not to exceed more than once per year	6 ppm (7,000 µg/m^3)
		1-hour	35 ppm (40,500 µg/m^3)	Not to exceed more than once per year	No adopted standard – state standard
Lead (Pb)	Primary and secondary	Rolling 3-month average	0.15 µg/m^3	Not to be exceeded	--
Nitrogen Dioxide (NO_2)	Primary	1-hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years	--
	Primary and secondary	1-year	53 ppb (100 µg/m^3)	Annual Mean	--
Ozone (O_3)	N/A	1-hour	--	--	0.08 ppm
	Primary and secondary	8-hours	0.070 ppm	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years	No adopted standard – State standard
Particle Pollution ($PM_{2.5}$)	Primary	1-year	12.0 µg/m^3	Annual mean, averaged over 3 years	No adopted standard – Federal standard
	Secondary	1-year	15.0 µg/m^3	Annual mean, averaged over 3 years	--
	Primary and secondary	24-hours	35 µg/m^3	98th percentile, averaged over 3 years	No adopted standard – Federal standard
Particle Pollution (PM_{10})	N/A	Annual arithmetic mean	--	--	20 µg/m^3
	Primary and secondary	24-hours	150 µg/m^3	Not to be exceeded more than once per year on average over 3 years	50 µg/m^3
Sulfur Dioxide (SO_2)	Primary	1-hour	75 ppb	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years	--
	Secondary	3-hour	0.5 ppm	Not to be exceeded more than once per year	
Visibility Reducing Particulate Matter *Not a criteria pollutant	N/A	8-hour	N/A	N/A	Extinction coefficient of 25 Mm/50% of year; 34 Mm/90% of year

County Regulations

The project area is located in Incline Village within Washoe County, Nevada, where the WCHD's AQMD has primary authority and is the implementing agency for compliance with the NAAQS for all of Washoe County. Implementation of the CAA is done through ambient air monitoring, permitting, and compliance regulations. The Washoe County designated area upholds the same air quality standard requirements as established by the NAAQS.

3.2.2 Environmental Consequences

Basis of Significance

The potential for direct, indirect, and cumulative air quality effects were evaluated through the identification of all potential emission sources, their duration and frequency, and the existing air quality requirements for the Proposed Action alternative.

An alternative would result in significant adverse effects to air quality if the project would:

- Cause exceedance of federal, state, or regional air quality standards,
- Increase traffic volumes or vehicle miles traveled, or
- Result in exposure of sensitive receptors to substantial pollutant concentrations.

No Action Alternative

The No Action alternative would continue standard operation of the WRRF, which would contribute no additional release of criteria air pollutants or dust. Additionally, the emergency storage of treated effluent in Pond #1 for temporary storage would not contribute to the release of criteria air pollutants.

Proposed Action Alternative

Fugitive Dust from Temporary Construction Activities

The Proposed Action would result in temporary impacts to air quality from generation of fugitive dust and emissions from mobile sources (i.e., construction equipment). The Proposed Action activities include vegetation removal, grading, and excavation of 72,619 square feet (1.67 acres) of land that make the dirt more susceptible to wind erosion, producing airborne particles. Based on the area of disturbance, the project contractor would be required to obtain dust control permit from AQMD prior to any construction activities Inspection and maintenance of these BMPs are to be maintained within a daily log to document effectiveness. Additionally, TRPA Code 64.4 requires approved dust control measures to be implemented for all grading and excavation activities. With adherence to the required conditions of the dust permit and required TRPA grading and construction requirements, adverse effects from fugitive dust would be reduced to less than significant.

Post-construction, all areas of temporary disturbance would be stabilized with incorporation of mulch and pine needles secured by a covering of erosion control fabric and boulder clusters. Long-term operation of the proposed effluent storage tank would result in minimal impacts to air quality from fugitive dust.

Air Pollutant Emissions from Vehicular Sources

Use of diesel-fueled construction equipment for transport of materials to the site, site preparation, paving, and tank construction would temporarily increase local emissions of diesel particulate matter (PM) and oxides of nitrogen. However, due to the size of the site (less than two acres), the amount of equipment that would typically operate at one time would be limited to a grader, a loader, a forklift, a crane, and standard utility trucks. To reduce any negative effects to air quality that may occur from operation of construction equipment, the contractor would adhere to Washoe County engine idling regulations which limit the idling of diesel engines to less than 15 consecutive minutes (NAC 445B.576), which is more restrictive than TRPA idling requirements of 30 consecutive minute limitations (TRPA Code of Ordinances Chapter 65.1.8). Effects to air quality from short-term (less than six months) construction equipment would be temporary and would not exceed Federal or TRPA air quality thresholds.

Long-term operation of the tank would require minimal maintenance and not generate any new vehicle miles traveled in the basin. As such, the Proposed Action is not subject to additional analysis of emissions from transportation (TRPA Code 65.2.3 D1).

Sensitive Receptors

The nearest sensitive receptors from the project boundary include residential housing (0.16 miles) on the opposite side of SR-28, Lake Tahoe Community College (0.73 miles), and a church (0.70 miles). These sensitive receptors are far enough away from the project area to not be impacted by any emissions generated from construction activities.

Conformity Review, HAPs, and Stationary Sources

The project area is in attainment of NAAQS as regulated by the AQMD SIP and therefore, the General Conformity Rule does not apply. The proposed construction of an emergency effluent storage tank and access road would not be a source for HAPs or criteria pollutants. The proposed new effluent storage tank does not require a General Air Quality Stationary Source Permit to operate.

3.2.3 Mitigation

With adherence to conditions of the Washoe County dust control permit and implementation of required county and TRPA BMPs (e.g. wetting exposed soil, covering material stockpiles, and street sweeping during construction), the Proposed Action will result in short term, construction related impacts to air quality that will not exceed Federal, state, or regional air quality standards for the basin. Temporarily disturbed soils will be permanently

stabilized upon completion of construction with covering of mulch and pine needles and erosion control blankets per approved plans. The Proposed Action will have a less than significant effect on air quality.

3.3 Biological Resources

This section evaluates the potential project effects to the on-site biological resources including the existing vegetation, wildlife habitat, and special status species as listed by the United States Fish and Wildlife Service (USFWS), TRPA, Nevada Department of Wildlife (NDOW) and Nevada Natural Heritage Program (NNHP). Plant and animal species not expected to occur because of lack of suitable habitat, or with a low probability to occur (see table 3-4 below) are not addressed further in this analysis as implementation of the Proposed Action is not expected to affect those species.

3.3.1 Affected Environment

Environmental Setting

General Wildlife and Vegetation

To evaluate and describe the existing environment of the site and common biological resources present, a field survey was completed on September 2, 2022 by Resource Concepts, Inc. (RCI) Senior Environmental Specialist. Field surveys consisted of a reconnaissance-level survey of habitat for terrestrial wildlife and a comprehensive survey of vegetation, focusing on special-status plants and noxious weeds.

The proposed project area is located within a Jeffrey pine forest community type (Sawyer et al. 2009). As the proposed project area is located adjacent to the existing WRRF, modifications to the site vegetative community includes creation of effluent storage Pond #1 and the existing access road. The effluent storage tank will be constructed within the footprint of existing Pond #1 and existing dam once it has been removed and graded (Figure 5). Pond #1 is approximately one acre in size with herbaceous vegetation dominated by Baltic rush (*Juncus balticus)* and common species such as sweet gum (*Grindelia squarrosa*) and Foxtail barley (*Hordeum jubatum).* There are no trees or shrubs within the pond.

Figure 5. Overview of excavated unlined effluent storage basin (Pond #1). Dam to be removed and site regraded for tank foundation.

To minimize disturbance to vegetation, the proposed 16-foot-wide access road will be constructed within the current disturbance corridor of the existing dirt access road currently used for pond maintenance (Figure 5).

Figure 6. Existing dirt access road to be widened and paved to accommodate construction vehicles and for long-term maintenance.

The predominate vegetation community found surrounding the project area is dominated by Jeffrey pine (*Pinus jeffreyi)* with occurrences of white fir (*Abies concolor),* incense cedar *(Calocedrus decurrens)*, and sugar pine (*Pinus lambertiana).* The understory shrubs include green-leaf manzanita (*Arctostaphylos patula),* Sierra chinquapin (*Chrysolepis sempervirens),* tobacco bush *(Ceanothus velutinus* var. *velutinus),* bitterbrush *(Purshia tridentata),* and squaw carpet *(Ceanothus prostrates).* The understory herbaceous layer is sparse but characterized by common forbs including Sierra wallflower (*Erysimum capitatum* ssp*. perenne*), mountain Monardella (*Monardella odoratissima*), sulfur flower buckwheat (*Eriogonum umbellatum*), and hoary tansy aster (*Machaeranthera canescens* var*. canescens)*. Common grasses include mountain brome (*Bromus marginatus*), pine bluegrass (*Poa secunda),* and bottlebrush squirreltail (*Elymus elymoides*).

The September 2, 2022, botanical survey did not identify any state or federally listed noxious weeds. The survey did identify cheatgrass, a non-native invasive grass species. There are no wetlands, streams, or riparian areas within the project area. The project area is not located within a floodplain.

The project area is adjacent to the existing WRRF, consisting of a high level of daily human activity and associated noise that would likely deter use of the site by most sensitive wildlife. However, there are several species common to the Tahoe Basin that have been observed or are likely to occur within the project area. Several resident and migratory birds are likely to be present at the site, including Steller's jay (*Cyanocitta stelleri),* mountain chickadee (*Parus gambeli),* American robin (*Turdus miratorius)*, white-breasted nuthatch (*Sitta carolineusis),* dark eyed junco (*Junco hyemalis),* and mourning doves (*Zenaida macroura*).

The Tahoe Basin is home to several large mammals that are likely to be present in the surrounding area, including black bears (*Ursus americanus*), coyote (*Canis latrans*), and mule deer (*Odocoilius hemionus*). There are no mule deer migration corridors that transect the project area. Several small mammals inhabit the forest surrounding the project site including several species of chipmunks (*Eutamias* spp.), Douglas' squirrel (*Tamiasciurus douglasii*), western gray squirrel (*Sciurus griseus*), and other small mammals such as deer mice (*Peromyscus maculates*).

There are five amphibians and eight reptile species known to reside in the Lake Tahoe Basin (TRPA 2006). Based on the habitat present within the project area, three amphibians and all eight reptile species may be present. Some of the species likely to occur in the Mill Creek drainage and Pond #1 include the western toad (*Bufo boreas)*, pacific tree frog (*Hyla regillaI),* and western aquatic garter snake (*Thamnophis couchil)*. In the drier coniferous forest surrounding the site there is habitat for several lizard species, including, but not limited to, the northern alligator lizard (*Elgaria coerulea),* sagebrush lizard (*Sceloporus graciosus*), and western fence lizard (*Sceloporus occidentalis).*

There are no fisheries or suitable habitat for fisheries present within the project area.

Special Status Species

Special status species are those species legally protected or identified as sensitive by federal, state, or local regulatory agencies. For the purposes of this assessment, special status plant and animal species are those that are:

- listed by the USFWS as Threatened, Endangered, Candidate or Proposed species (TECPS) (Federal Register 50 of Federal Regulations Part 17.11 and 17.12) and under the Bald and Golden Eagle Protection Act (16 U.S.C, 668-668c),
- designated by the TRPA as special interest and for which the TRPA has established environmental thresholds (TRPA 2015),
- designated as protected in Nevada as endangered or sensitive under Section 501 of the Nevada Revised Statutes and Section 503 of the Nevada Administrative Code (NAC),
- identified as a Species of Conservation Priority (SCP) in the Nevada Wildlife Action Plan,
- listed as Critically Endangered plants by the Nevada Division of Forestry under Nevada Revised Statutes 527.260-.300.
- designated as an At-Risk Species by the NNHP, or
- considered by the NNHP as a "watch list" or threatened plant species.

A list of potential state, federal and TRPA listed species that may occur within the project area was compiled based on field surveys in 2022 and review of the following resources:

- USFWS's Information Planning and Conservation (IPAC) System (February 9, 2023),
- NNHP Database Request (December 12, 2022),
- Information request from NDOW (December 9, 2022), and
- Consultation with Mark Enders, Wildlife Biologist and Tahoe Resource Team Member, NDOW (2022-2023; on-going).

Table 3-4 presents a summary of project effects to TECPS species and specials status species that may be affected by the project.

Table 3-4. Special Status Plant and Wildlife Species with Potential to Occur Within Project Area.

Common Name / *Scientific Name*	Fed	Status State	TRPA	Habitat	Potential to Affect / Occur within Project Area
PLANTS	blank	blank	blank	blank	blank
Washoe tall rockress *Boechera rectissima (Arabis rectissima* var. *simulans)*	--	At-Risk	--	Occurs in dry, deep, sandy granitic or andesitic soils on mostly gentle slopes, in full or filtered sunlight in Jeffrey pine/white fir forests. 6,035 – 7,335 ft.	***May occur.*** Potential habitat present within Jeffrey pine forests. No individuals were observed in adjacent vegetation during surveys.
Galena Creek rockcress *Boechera rigidissima (Arabis rigidissima* var. *demota)*	--	At Risk	SIS	Occurs on sandy to rocky soils or on outcrops derived from granitic or volcanic soils. In Nevada, known only from Mount Rose in Washoe County. 7,400 – 8400 ft.	None. Potential habitat is present, but this species is known only from Mount Rose in Washoe County. No individuals were observed during surveys.
Tahoe Draba *(Draba asterophora* var. *asterophora)*	--	At Risk	SIS	Rock crevices and open granite talus slopes on northeast slopes. 8,900 – 10,700 ft.	None. No potential habitat within Project Area.
Cup Lake Draba *(Draba asterophora* var. *macrocarpa)*	--	--	SIS	Steep, gravelly, or rocky slopes; 8,400 – 9,300 ft.	None. No potential habitat within Project Area.
Slide Mountain buckwheat *(Eriogonum ovalifolium* var. *eximium)*	--	At Risk	--	Granitic sandy or gravelly to rocky or even talus slopes in subalpine forests and fell fields. Known only from Carson Range. 5,570 – 8,200 ft.	None. No potential habitat within Project Area.
Long-petaled lewisia *(Lewisia longipetala)*	--	--	SIS	Granitic. Alpine boulder and rock field; subalpine coniferous forest (mesic, rocky). Found along ridge tops where snowbanks persist throughout the summer. 8200 – 9,600 ft.	None. No potential habitat within Project Area.
White Bark Pine *(Pinus albicalus)*	FPT	At Risk	--	Subalpine and timberline on rocky, well-drained granitic or volcanic soils.	**No Effect.** No potential habitat within Project Area. Not identified within botanical surveys.
Tahoe yellowcress *(Rorippa subumbellata)*	--	CE	SIS	Sandy beaches close to Lake Tahoe. Known only from Lake Tahoe.	None. No potential habitat within Project Area.

Common Name / *Scientific Name*	Fed	Status State	TRPA	Habitat	Potential to Affect / Occur within Project Area
WILDLIFE	blank	blank	blank	blank	blank
Mammals	blank	blank	blank	blank	blank
North American Wolverine (*Gulo gulo luscus)*	FPT	SCP	--	High-elevation area; dependent on deep persistent snow cover for denning. Prefer areas of low human disturbance. No known occurrences within USFS Lake Tahoe Basin Management Unit.	**No Effect.** No suitable habitat within the Project Area.
Sierra Nevada Red Fox (*Vulpes vulpes necator*)	FE	SCP	--	Subalpine habitat characterized by a mosaic of high-elevation meadows, rocky areas, scrub vegetation and woodlands. Dens in talus slopes. Single known population in vicinity of Sonora Pass, CA. No known occurrences in the Tahoe Basin.	**No Effect.** No suitable habitat within the Project Area.
Sierra Nevada Snowshoe Hare (*Lepus americanus)*	--	SCP	--	High elevation zone of the middle and northern Sierra Nevada in riparian deciduous, alpine meadows and conifer forests. Prefers earlier successional stages in pine or fir stands.	May cross through conifer forests, but not likely to occur within the project area as there are no meadows, riparian vegetation or early successional pine stands present.
Mule Deer (*Odocoileus hemionus*)	--	BG, SCP	SIS	Move between various zones from the forest edges at higher elevations to the desert floor depending on the season.	Mule deer are likely present in the surrounding forested habitat. Direct impacts are anticipated to be minimal due to temporary increase in human activity and noise during construction.
Amphibians	blank	blank	blank	blank	blank
Sierra Nevada Yellow-legged Frog (*Rana sierrae*)	FE	SCP	--	Above 4,500 ft. High elevation low-gradient streams and small ponds that are either intermittent or perennial.	**No Effect.** No suitable habitat within the Project Area. The Project Area does not include mapped critical habitat.

Common Name / *Scientific Name*	Fed	Status State	TRPA	Habitat	Potential to Affect / Occur within Project Area
Fish	blank	blank	blank	blank	blank
Lahontan Cutthroat Trout (LCT) (*Oncorhynchus clarkia henshawi*)	FT	GF, SCP	--	Cold-water habitats including large terminal alkaline lakes, alpine lakes, slow meandering rivers, mountain rivers, and small headwater tributary streams. Requires gravels and riffles for spawning and generally does not persist or occur with nonnative salmonids.	**No Effect.** No suitable habitat within the Project Area.
Birds	blank	blank	blank	blank	blank
Migratory Birds	MBTA	SCP	SIS	Various habitats found within the Project Area.	Various migratory bird species have the potential to occur in the Project Area and were observed during surveys. Any removal of nesting vegetation will require pre-construction surveys to avoid impacts to nesting birds.
Northern Goshawk (*Accipiter gentilis*)	MBTA	SCP	SIS	Suitable habitat is characterized by dense (50 to 100% canopy), multi storied, multi species late seral coniferous forests with a high number of large (> 24-inch diameter at breast height) snags and downed logs.	Foraging habitat may occur within the Project Area, but forest is not multi-storied and has few trees with > 24-inch dbh. Per consultation with NDOW Wildlife Biologist, no known nests occur in or near the Project Area.
Osprey (*Pandion haliaetus*)	MBTA	--	SIS	Found near water, either fresh or salt, where large numbers of fish are present. Regular around large lakes, reservoirs, rivers. Migrating Ospreys can occur far from water, even over the desert.	None**.** No suitable habitat within the project area.
Bald Eagle (*Haliaeetus leucocephalus*)	B&GEPA	SCP	SIS	Nesting territories are normally associated with lakes, reservoirs, rivers, or large stream. Bald Eagle nests are usually located in uneven-aged (multi-storied) conifer stands with old growth components. Species avoids areas with nearby human activities.	None**.** No suitable habitat within the project area. No known nests along east shore of Lake Tahoe.

Common Name / *Scientific Name*	Fed	Status State	TRPA	Habitat	Potential to Affect / Occur within Project Area
Golden Eagle (*Aquila chrysaetos*)	B&GEPA	SCP	SIS	Open mountains, foothills, plains, open country. Requires open terrain. In the north and west, found over tundra, prairie, rangeland, or desert; very wide-ranging in winter, more restricted to areas with good nest sites in summer.	None**.** No suitable habitat within the project area.
Peregrine Falcon (*Falco peregrinus*)	MBTA	SCP	SIS	Nesting habitat consisting of a cliff face over 200 ft with more than one nesting ledge, a wooded slope or open land below, and isolated from roads or other human disturbance.	None**.** No suitable habitat within the project area**.**
Mountain Quail (*Oreortyx pictus*)	MBTA	SCP	--	Breeds in chaparral zone up to lodgepole pine forests; prefers stands with much shrubbery and low percent canopy cover.	None**.** No suitable habitat within the project area**.**
Flammulated Owl (*Otus flammeolus*)	MBTA	SCP	--	Breeds in conifer habitats from ponderosa and Jeffrey pine to red fir forests. Prefers low to intermediate canopy coverage.	Suitable nesting habitat present. Any removal of nesting vegetation will require pre-construction surveys to avoid impacts to nesting birds.
Invertebrates	blank	blank	blank	blank	blank
Monarch Butterfly (*Danaus plexippus*)	FC	--	--	Prefer open fields and meadows with milkweed, which is required for laying their eggs (*Asclepias* spp.).	No suitable habitat within project area.

***Status**

Federal:

FE – Federal Endangered
FT – Federal Threatened
FPE – Federal Proposed Endangered
FPT – Federal Proposed Threatened
FC – Federal Candidate
FPD – Federal Proposed for Delisting
B&GEPA – Bald & Golden Eagle Protection Act
MBTA – Migratory Bird Treaty Act

TRPA:

SIS – Special Interest Species

State:

GF – Game Fish
BG – Big Game
SCP – Species of Conservation Priority

The above listed plant and animal species that are not expected to occur because of lack of suitable habitat, or with a low probability to occur, are not addressed further in this analysis as implementation of the proposed action is not expected to affect those species.

Regulatory Setting

Several federal, state, and local regulations exist for the protection of sensitive or rare species and their habitats.

Federal Regulations

Endangered Species Act (ESA)

The USFWS regulates the taking of a species listed as threatened or endangered under the ESA. Section 9 of the ESA (16 U.S.C. 1538(a)(1)(B)) prohibits the take of any endangered species. The statute defines take as follows: "the term 'take' means to harass, harm, pursue, hunt, shoot, kill, trap, capture, collect or to attempt to engage in any such conduct" (16 U.S.C. 1532 (19)). USFWS has further defined "harm" to mean "an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering" (50 C.F.R. 17.3). If a proposed project would result in take of a federally listed species, either the project applicant must acquire an incidental-take permit, under Section 10(a) of the ESA, or if a federal discretionary action is involved, the federal agency would consult with the USFWS under Section 7 of the ESA.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act prohibits any form of possession or taking of either bald eagles or golden eagles. In 1962, the act was amended to create a specific exemption for possession of an eagle or eagle parts (e.g., feathers) for religious purposes of Indian tribes (USFWS, 2009).

Migratory Bird Treaty Act

Migratory birds are protected and managed under the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. 703 et. seq.) and Executive Order 13186. Specific provisions in the statute include the establishment of a federal prohibition, unless permitted by regulation, to "pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export, any migratory bird, any part, nest, or egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof, included in the terms of the conventions [for the protection of migratory birds]." 16 U.S.C. § 703(a).

Invasive Species - Executive Order 13112

Executive Order 13112 requires federal agencies to identify actions that may affect the status of invasive spices, prevent the introduction of invasive species to the extent practicable and permitted by law, and only authorize actions that could promote the introduction or spread of invasive species if the agency determines that (1) the benefits outweigh the potential harm caused by invasive species, and (2) all feasible and prudent measures to minimize the risk of harm would be taken.

State Regulations

NRS 527.270

Rare plant species that are determined to be Critically Endangered (CE) are considered to be threatened with extinction and are protected under Nevada Revised Statute (NRS) 527.270. No CE species can be removed or destroyed except under special permit issued by the State Forester Fire Warden.

NAC 503.030

NAC 503 provides listed wildlife species that are classified as threatened, sensitive or otherwise protected in Nevada. Take or possession of these species is not allowed without appropriate license, permit or authorization.

Nevada Wildlife Action Plan

Nevada wildlife species that are a conservation priority are listed under the NDOW Nevada Wildlife Action Plan. The Action Plan sets the goals and objectives for proactively preventing species decline.

TRPA

The Wildlife Subelement of the Conservation Element of the TRPA Goals and Policies provides a list of Special Interest Species for which TRPA has established: 1) a minimum number of population sites and 2) disturbance zones for each species or species that shall not be physically disturbed in any way unless necessary to enhance the quality of the habitat (TRPA CODE, Chapter 78, Subsection 78.3.A).

3.3.2 Environmental Consequences

Basis of Significance

Direct and indirect effects on vegetation, wildlife, and special status species would be considered significant if the alternatives result in any of the following:

1) Significantly reduce, degrade, or fragment the native vegetation and wildlife habitat in the project area.

2) Interfere substantially with the movement of any native wildlife species (habitat connectivity) or with established native resident or migratory wildlife corridors.

3) Substantial effects on a sensitive natural community, including federally protected wetlands and other jurisdictional Waters of the U.S. as defined by Section 404 of the Clean Water Act.

4) Adverse effects to designated critical habitat.

5) Unauthorized take of a federally listed threatened, endangered species.

6) Substantial effects to any other special status species, including degradation of its habitat to the degree of jeopardizing the continued existence of the species or critical habitat.

7) Conflict with any local, state or federal policies or ordinances protecting biological resources, such as tree preservation policies or ordinances.

No Action Alternative

The No Action alternative would have no direct effects on wildlife, botanical, or special status species as no effluent storage tank would be constructed and there would be no disturbance to existing habitat or temporary disturbance from construction activities.

The No Action alternative could potentially result in indirect impacts to aquatic wildlife habitat through degradation of water quality within Lake Tahoe. In the absence of an effluent storage tank, effluence would be discharged to the unlined storage ponds during emergency situations, which could lead to contamination of groundwater or surface waters that flow to Lake Tahoe and significantly affect water quality and aquatic wildlife habitat.

Proposed Action Alternative

Effects to Common Vegetation and Wildlife Habitat

The Proposed Action will result in total ground disturbance to 1.67 acres (72,619 sq.ft.). This area includes approximately 0.4 acres (18,581 sq.ft.) of upland coniferous forest to be cleared for construction of the improved access road embankments. Existing pond #1 and dam (approximately 41,166 sq.ft.) will also be regraded but have little to no vegetation. The effluent storage tank will be constructed within the footprint of Pond #1 once the dam is removed and soils graded. Impacts to 1.3 acres of upland coniferous forest will result in the removal of an estimated 32 trees greater than 14 inches in dbh (i.e., the tree size that would require a TRPA permit for removal) and understory shrubs (Figure 7). Four of the trees to be removed are greater than 24-inches dbh. The trees to be removed are primarily Jeffrey pine (*Pinus jeffreyi)*, intermixed with lodge pole (*P. contorta)*, western white pine (*P. monticola*), and sugar pine (*P. lambertiana*).

Table 3-5. Number of Trees to be Removed.

Tree DBH (inches)	No. of Trees
14-24	28
> 24	4
Total	**32**

Figure 7. Trees to be removed for access road widening and cut embankments.

The TRPA Code Section 61.1.4 "Old Growth Enhancements Protections," prohibits the removal of trees greater than 24 inches in eastside forests with few exceptions. Trees larger than 24 inches may be removed for public utility projects where the removal is for public health and safety. Within the project area, the vegetation that will be impacted and trees to be removed were minimized to the extent practicable by aligning the new access road atop of an existing dirt access road and narrowed to the width to that necessary for access of construction equipment. Additionally, the effluent storage tank will be located within the footprint of the existing dam and basin (Pond #1) once removed, requiring no additional tree removal and minimal impacts to understory vegetation. All temporarily disturbed areas will be stabilized and returned to pre-construction condition upon project completion.

Removal of the trees and brush would alter the existing habitat conditions with the 0.40 acres of upland coniferous forest, but given the abundance of similar adjacent habitat, the Proposed Action would not result in a significant loss of wildlife habitat. There would be no impacts to sensitive vegetation communities, such as wetlands, fens, or stream environment zones, or designated critical habitat. All areas of disturbance will be stabilized upon project completion with mulch and installation of an erosion control blanket. IVGID will comply with all

TRPA regulations for authorization of tree removal and site grading, which will be documented in the TRPA Public Service permit. Impacts to common vegetation and wildlife habitat will be minor.

Effects to Federally Threatened, Endangered, Proposed, or Candidate Species

The initial IPaC data review from February 9, 2023, identified five federally listed wildlife species and one plant species:

Endangered
Sierra Nevada Yellow-legged Frog (SNYLF)(*Sierra rana*)
Sierra Nevada Red Fox (*Vulpes vulpes necator*)

Threatened
Lahontan Cutthroat Trout (LCT) (*Oncohynchus clarkii henshawi)*
White Bark Pine (*Pinus albicaulis)*

Proposed / Candidate
North American Wolverine (*Gulo gulo luscus)*
Monarch Butterfly (*Danaus plexippus)*

There is no federally designated critical habitat identified within the project area.

Based on review and assessment of on-site potential habitat, there is no potential habitat for Sierra Nevada Yellow-legged Frog, LCT, North American Wolverine, Sierra Nevada Red Fox, or Monarch Butterfly within the project area. The project will have no direct or indirect effects on these species.

The USFWS IPaC list included one candidate botanical species, white bark pine (*Pinus albicaulis),* that is known to occur on nearby surrounding ridges just below tree line within Washoe County. The project area does not contain suitable habitat for this species, and botanical surveys completed in September 2022 confirmed that this species does not occur on-site. The project will have no effect on white bark pine.

Effects to Migratory Birds

Migratory birds are protected under the Migratory Bird Treaty Act. Several species of migratory birds are expected to occur within the project area. The Proposed Action would have a short-term direct effect to migratory birds due to increased disturbance from construction related noise due to increased presence of humans and heavy equipment activities. This disturbance from elevated noise would be limited to the duration of construction (approximately six months) and not expected to have a long-term negative effect.

Widening of the road is anticipated to result in the loss of 0.40 acres of upland coniferous forest habitat and is minimal in comparison to the surrounding upland forest within the

undeveloped national and state forests within the Tahoe Basin. The project area is currently located adjacent to the WRRF operations and existing roadways, where daily noise and human activity are common. Additionally, mitigation measure MM BIO-6 includes preconstruction surveys for nesting migratory birds prior to vegetation removal and BMPs to be implemented if any active nests are found within the project area. Implementation of these mitigation measures will reduce any potential adverse effects to migratory birds to less than significant.

Effects to State and TRPA Sensitive Species

As identified in Table 3-4 above, one state listed plant species and two Nevada priority species of concern have suitable habitat and potential to be affected by the proposed project. These include the Washoe tall rockcress, northern goshawk, and mule deer.

Washoe tall rockcress is a State listed 'At-Risk' species found in dry, deep sandy granitic soils within Jeffrey pine and white fir forests. If present, this species may be affected directly by trampling from construction equipment and project personnel, excavation, and site grading. However, negative direct effects of the Proposed Action are not expected to occur to this species since there are no known occurrences within the proposed project area. If any new occurrences are discovered prior to project initiation, they would be flagged and avoided.

RCI consulted with Mark Enders, Wildlife Biologist and Tahoe Resource Team Member for NDOW (personal communication January 13, 2023) on the potential for special status wildlife to be affected by the proposed project. NDOW routinely completes surveys for priority wildlife species within the eastern portion of the Lake Tahoe Basin. Based on recent surveys in the area, NDOW identified northern goshawk to be active in the surrounding forest and could potentially be impacted by the Proposed Action. Given the current level of activity at the WRRF and the existing internal access road, it is unlikely that northern goshawk would nest within the project area. However, northern goshawk may pass through or forage within the project area.

As for all migratory birds, the Proposed Action may cause temporary short-term effects to northern goshawk foraging due to increased noise resulting from increased human activity and construction equipment. Based on these concerns, IVGID agreed to coordinate with NDOW to complete surveys for northern goshawk prior to the start of construction. Initial surveys were completed on April 21, 2023, in a nearby goshawk protected activity center. No goshawks were observed or heard during that survey. Additionally, project mitigation measures (MM) require preconstruction surveys for nesting birds and implementation of BMPs if nests are found. Incorporation of these MMs would reduce any potential adverse effects to northern goshawk to less than significant.

The project area is located at the northern edge of the Carson River mule deer herd migration corridor (CNDDB 2023). Mule deer may occasionally migrate through or forage within and near the project area, but due to the on-going human presence and noise associated with the WRRF, mule deer are not expected to use the project area for fawning. As such, short-term

construction activities may temporarily disturb mule deer, any potential affects to mule deer would be minor and unavoidable. Based on the small acreage (1.67 acres) of permanent disturbance to potential foraging or migratory habitat and appropriate BMPs, impacts would be considered less than significant.

Effects of Invasive Plant Species

An inventory of terrestrial invasive plants was completed in September 2022 and will be repeated prior to the start of construction. There were no state or federally listed noxious weed species identified on site. Cheatgrass was the only non-native invasive species that was documented in the project area.

Soil disturbances from project construction could provide opportunities for the introduction and proliferation of invasive plant species. These species have the potential to quickly outcompete native plants for sunlight, water, and nutrients. These species often form dense monocultures which may adversely impact habitat for sensitive plants and wildlife. Seeds of these species could be carried into special status plant habitats on equipment, vehicles, and worker's boots or clothing. Project mitigation measures listed below reduce the potential effects of invasive plant species to less than significant.

3.3.3 Mitigation

MM BIO-1. Construction will be limited to the areas shown on plans. Boundary fencing (i.e., orange construction fencing or highly visible rope fencing) will be placed and maintained to clearly identify the limits of grading, staging areas, and pullouts to protect adjacent vegetation. Erosion control and vegetation fencing will align with TRPA standard details.

MM BIO-2. All areas disturbed by construction activities will be revegetated in accordance with the TRPA Handbook of Best Management Practices and approved in the TPRA Public Service Permit.

MM BIO-3. All off-road equipment and vehicle use for construction are required to be weed-free. All equipment and vehicles will be cleaned of all attached mud, dirt, and plant debris prior to arriving on the project area.

MM BIO-4. Infestations of noxious weeds identified on-site before construction will be treated.

MM BIO-5. Only certified weed-free straw or other materials including sand, gravel, rock, and mulch will be used.

MM BIO-6. Avoid impacts to migratory birds nesting in trees along the access routes and adjacent to the proposed repair sites by conducting pre-construction surveys for active nests along proposed haul roads, staging areas, and construction sites. This will especially apply if construction begins in spring or early summer. Work activity around

active nests will be avoided until the young have fledged. If construction commences during nesting season, March 1st- August 31st, a nesting bird survey will be conducted a minimum of a week in advance. Additionally, a survey will be conducted 24 hours in advance of the construction, to ensure no active nests. If active nests are located, USFWS will be contacted for Migratory Bird Treaty Act coordination.

MM BIO-7. Stormwater runoff will be controlled using standard construction BMPs and equipment (straw wattles, silt fencing, etc.).

MM BIO-8. All food-related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in securely closed containers and removed at least once a week from a construction or project site. Daily removal is preferred.

MM BIO-09. No firearms will be allowed on the project site.

MM BIO-10. No pets, such as dogs or cats, will be permitted on the project site to prevent harassment, mortality, or destruction of dens or burrows.

3.4 Cultural Resources

3.4.1 Affected Environment

This section describes the existing known cultural and architectural resources found within the Area of Potential Effect (APE) and the potential environmental effects of the Proposed Action and No Action alternatives to those resources. The APE for cultural and architectural resources was determined in consultation with the Nevada State Historic Preservation Office (SHPO) and includes both the Area of Direct Impacts (ADI) and Area of Indirect Impacts (AII).

Environmental Setting

IVGID's WRRF can be considered as one part of a larger water conveyance system that extracts water from Lake Tahoe, sanitizes and distributes that water around Incline Village, collects sewage and wastewater from Incline Village, treats that sewage and wastewater, and exports effluents from the Tahoe Basin. The project area is surrounded by a large number of buildings and structures relating to the 1960s sewage treatment plant and the more recent WRRF that has largely replaced the original sewage treatment plant.

A Cultural Resources Inventory Report for the IVGID Effluent Tank Project was prepared by NCE in February 2023 to describe the architectural and cultural resources with potential to be affected by the Proposed Action. The following sections are excerpts from NCE's 2023 Report.

Historic Context

Historic contexts are those patterns or trends in history by which a specific occurrence, property or site is understood and its meaning within history. The project area, located on the northeast shore of Lake Tahoe in Incline Village was originally inhabited by the Washoe peoples (Wa-She-Shu e Da-ow-ago). The Washoe people lived in the Lake Tahoe Basin for more than 7,000 years prior to "discovery" by John Charles Fremont and Christopher "Kit" Carson in 1844. The Lake Tahoe Basin became a main source of lumber supporting Comstock mines and settlements during the 1860s and 1870s. Walter Scott Hobart Sr. owned and operated several sawmills along the north and eastern portions of the Lake Tahoe Basin that supplied lumber to the Virginia & Gold Hill Water Company flume as well as the mines in Virginia City. In 1878, Hobart expanded his logging operation by forming the Sierra Nevada Wood and Lumber Company (SNWLC). A sawmill was established close to what is now the Ponderosa Ranch arena and a double-tracked incline railroad that moved lumber from the mill to the Incline summit, which inspired the name Incline Village. The SNWLC constructed a sawmill at Crystal Bay and narrow-gauge railroad connecting the sawmill to Sand Harbor, as well as the sawmill in Ponderosa Ranch.

The Incline Village area was first developed for residents from the period between 1920 and World War II, mostly as summer homes. However, the majority of the residential and municipal growth in Incline Village occurred following the 1960s with development by the Crystal Bay Development Company followed by the Boise Cascade Corporation.

The first sewage treatment plant was constructed in 1962 at the location of the current WRRF and included a large Aerobic Digester (S3411) and three small buildings. The sewer treatment and export system in Incline Village was completed in 1971, which included two effluent storage reservoirs (S3410 and S2993) and a 16-inch diameter steel effluent pipeline running from the WRRF out of the Lake Tahoe Basin. Since the establishment of the sewage treatment plant, the area has been extensively improved and modified and all original buildings and sludge drying beds have been removed and replaced; three resources of historic age remain: the Aerobic Digester and two effluent storage reservoirs.

Architectural Context

The architectural influences in the Tahoe Basin have changed immensely through the years. The frontier vernacular architecture associated with the nineteenth-century logging and transportation systems have not survived in vicinity of Incline Village. Twentieth century tourism turned the Lake Tahoe Basin into a tourist destination and a place for seasonal residences, resulting in buildings ranging from large casinos and hotels to tiny rustic cabins and tents. Practical influences include cost, access, choice of architect (if any), availability of craftsmen, and, more recently, regulatory concerns. Ideological influences include the following somewhat overlapping categories: romanticism, pastoralism, rusticity, arts and crafts aesthetic, naturalism, escape from industrialism, and veneration of the past. Constructed influences result

from copying elements of existing buildings at Tahoe and elsewhere and include frontier vernacular architecture, resort rustic, National Park Service (NPS) rustic, Adirondack style, shingle style, stick style, craftsman style, picturesque revivals of European vernacular styles, and various modern examples purporting to fit into local mountain surroundings.

Shortly after World War II, Lake Tahoe experienced an era of unprecedented growth and development. Aided by the readily available architectural materials developed for the war effort (aluminum siding and windows, plywood, composition shingles, and other mass- produced materials), Lake Tahoe saw the explosion of the ranch style of architecture.

In addition to single-family residences, Incline Village contains a large number of larger buildings including condominiums, hotels, clubhouses, strip malls, and offices. These buildings present a wide range of forms resulting from their specific functions, but they attracted a noticeable degree of rustic features, in particular, the wooden shingle-clad cosmetic mansard is a prominent and recurring decorative feature.

Wastewater Treatment Plant

Property types associated with the larger water conveyance system include the main inlet pipes, water sanitization facilities, water reservoirs, water distribution pipes, sewers, storm drains, the wastewater treatment plant, and the pipeline that conveys treated effluent out of the Tahoe Basin. The wastewater treatment facilities consist of a collection of buildings and structures that are consistently present at similar facilities across the US. These property types include clarification tanks, storage tanks, filters, pumphouses, aeration basins, ponds, dams, reservoirs, and pipelines.

Criteria for assessing the eligibility for listing of the physical remains of water conveyance systems include size, length, and integrity (Hardesty and Little 2000). Character-defining elements of a water conveyance system may include the main intake structure, the conveyance structure (pumping station), the distribution system (ditch, flume, canals, sewers, storm drains, or pipelines), canal structures (drop chutes, check dams, head and diversion gates, culverts, weirs, inverted siphons), the materials (wood vs. steel vs. concrete), and the setting (rural versus urban).

Wastewater or sewage treatment plants are a specific sub-type of resources that form an important component of some water conveyance systems. Character-defining elements of wastewater or sewage treatment plants include steel or concrete reservoir tanks, storage reservoirs and storage dams, pumping stations, grit filters, rag filters, cyclones, classifiers, aeration tanks or basins, sedimentation tanks, and stabilization ponds.

Known Cultural Resources in the Project Area

To identify nearby resources listed on the National Register or designated as a TRPA historic resource, a records search was conducted through the Nevada Cultural Resources

Information System (NVCRIS) and data was downloaded from the TRPA map server. Various historic maps, historic photos, and historic aerial imagery was also examined.

This review indicated 26 cultural resource inventories that have previously been conducted within the study area. The previous inventories have identified a total of 13 archaeological resources and three architectural resources within one mile of the proposed project area. None of these previously recorded cultural resources lie within the project area.

The 2023 architectural and cultural inventory of the APE performed by NCE identified one additional architectural resource in the ADI, the Upper Pond (Pond #1) and Mill Creek No. 1 Dam (S3410); and two architectural resources in the AII, the Aerobic Digester (S3411) and the Effluent Storage Reservoir (S3409). In addition, the Lower Pond (Pond #2) and Mill Creek No. 2 Dam (S2993) were identified as an architectural resource but will not be affected by the Proposed Action and is outside of the APE for the project.

Findings of the Cultural Resources Inventory Report recommend that the three identified resources in the ADI and AII are not eligible for inclusion in the National Register of Historic Places (NRHP) and do not qualify as historical resources based on TRPA criteria. The Aerobic Digester (S3411) has been significantly altered through the removal of original (1962) components and lacks integrity to warrant a determination. The Upper Pond and Mill Creek # 1 Dam (S3410) built in 1962 is a surviving element of the original treatment plant, but the setting has been radically altered and the reservoir is no longer in regular use and is therefore unable to convey its significance. The Effluent Storage Reservoir (S3409) was likely added after the export pipeline was completed and rather, reflects on-going maintenance of the existing system.

No previously recorded or newly identified archaeological resources were identified in the ADI or AII and thus require no documentation of archeological resources for the project. Additionally, dense tree coverage surrounding the ADI and inset construction design of the effluent tank within the Pond #1 footprint significantly limit visual impacts of the proposed project. Due to these factors the proposed project meets the definition of “no historic properties affected” as defined by 36 C.F.R. § 800.4 (d) (1).

Tribal Consultation

Several Native American Tribes that have cultural affiliation to the project area were formally invited to consult in identifying any cultural resources that they may attach cultural, religious, or traditional significance towards. The Pyramid Lake Paiute, Reno-Sparks Indian Colony, and Washoe Tribe of Nevada and California were invited by phone call, email, and formal letter to be Section 106 consulting parties on June 29th, 2023. The Cultural Resources Inventory Report was shared with Native American Tribes invited to consult. No responses were received.

Regulatory Setting

Federal Regulations

National Historic Preservation Act of 1966, as amended (42 U.S.C. §4321 et seq.)

The proposed undertaking on National Forest land requires compliance with Section 106 and Section 110 of the National Historic Preservation Act (NHPA) (16 U.S.C. § 470) and its implementing regulations located at 36 C.F.R. § 800. Section 106 of the NHPA requires federal agencies to identify, evaluate, and protect heritage resources on lands under their jurisdiction, and to ensure that their actions do not inadvertently impact heritage remains. Under Section 106, federal governments must consider the effects of their undertakings on cultural resources listed on or eligible for the National Register and affords the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment. Those resources that are on or are eligible for inclusion in the NRHP are referred to as historic properties.

The NRHP requires properties to meet the following aspects of integrity that allow the property to retain and convey significance: location, design, setting, materials, workmanship, feeling, and association. Furthermore, the NRHP provides the guidelines for determining the eligibility of a property to be included in the National Register (36 C.F.R. § 60.4), which state that properties must meet one or more of the following criteria:

- Associated with events that have made a significant contribution to the broad pattern of history,
- Associated with the lives of persons significant to our past,
- Embody the distinctive characteristics of a type, period, method of construction, or represent a significant distinguishable entity whose components may lack individual distinction, and
- Have yielded or may be likely to yield information important in prehistory or history.

Protection of Historic Properties (36 CFR part 800)

These regulations implement NHPA Section 106 and define how federal agencies meet the statutory responsibility to take into account the effects of their undertakings on historic properties. The regulations identify consulting parties as State Historic Preservation Officers, Indian tribes and Native Hawaiian organizations (including Tribal Historic Preservation Officers), representatives of local governments, applicants for federal assistance, and additional consulting parties. The Advisory Council on Historic Preservation issues these regulations and oversees the operation of the NHPA, Section 106 process. The regulations identify the goal of consultation, which is “to identify historic properties potentially affected by the undertaking, assess its effects, and seek ways to avoid, minimize or mitigate any adverse effects on historic properties” (36 C.F.R. § 800.1).

Historic and Archeological Resources Protection Act (16 U.S.C. §470AA et seq.)

These regulations implement the Archaeological Resources Protection Act by establishing the uniform definitions, standards, and procedures for federal land managers to follow in providing protection for archaeological resources located on public lands and Indian lands. The regulations define the prohibited acts, which include excavating, removing, damaging, or otherwise altering or defacing archaeological remains; and selling, purchasing, exchanging, transporting, or receiving any archaeological resource that was removed from federal land in violation of Archaeological Resources Protection Act or any other federal law. The regulations also provide requirements for issuing permits under the authority of the Archaeological Resources Protection Act to any person proposing to excavate and/or remove archaeological resources from public lands or Indian lands

State Regulations

Nevada legislature passed Nevada Revised Statues Sections 383.150 to 383.190 which protects Native American graves on private and public land. This law was updated with passage of Senate Bill 244 in the 2017 Legislature. Upon the discovery of human bone or skeletons inadvertently disturbed by ground-disturbing activities such as construction, logging, or farming, one must report to the Nevada State Historic Preservation Office immediately. The SHPO must consult immediately with the Nevada Indian Commission and notify the appropriate Indian tribe. The authorized tribe or their representative, with the permission of the landowner, must inspect the burial site and recommend an appropriate means for the treatment and disposition of the site and all associated artifacts and human remains. If the burial site is located on private land, Section 383.170 allows, at the owner's expense, the reinterment of all human remains and associated artifacts in a location not subject to further disturbance if the Indian tribe fails to make a recommendation within ten days after it receives notification of the find.

TRPA

Chapter 67 of the TRPA Code of Ordinances includes regional provisions with the intent of identifying and protecting cultural, historical, archaeological, and paleontological resources. Under these provisions, a site survey by a qualified archaeologist and consultation with the Washoe Tribe are required prior to TRPA project approval. The TRPA Code of Ordinances Chapter 67 further requires that if a potential archaeological, cultural, or historical resource is discovered during the course of construction, all operations shall stop awaiting evaluation by a qualified archaeologist.

The regional TRPA Code of Ordinances also includes criteria for evaluating historical or architectural significance (TRPA Code 67.6.1–3). A property must meet at least one of the following criteria to be designated:

- TRPA Code 67.6.1 – Resources Associated with Historically Significant Events and Sites,

- TRPA Code 67.6.2 – Resources Associated with Significant Persons, and
- TRPA Code 67.6.3 – Resources Embodying Distinctive Characteristics.

3.4.2 Environmental Consequences

Methodology

To identify nearby resources listed on the National Register or designated as a TRPA historic resource, a records search was conducted through the NVCRIS and data was downloaded from the TRPA map server. Various historic maps, historic photos, and historic aerial imagery were also examined.

This review indicated 26 cultural resource inventories that have previously been conducted within the study area. The previous inventories have identified a total of 13 archaeological resources and three architectural resources within one mile of the proposed project area. None of these previously recorded cultural resources lie within the project area.

Three new resources were identified within the APE and evaluated for eligibility for listing.

Under federal regulations, effects must be considered on any cultural resource that meets the eligibility criteria for the National Register of Historic Places. For a property to be considered eligible for the National Register, it must meet one or more of the following significance criteria (36 C.F.R. § 60.4):

- **Criterion A –** properties that are associated with events that have made a significant contribution to the broad patterns of our history,
- **Criterion B –** properties that are associated with the lives of persons significant in our past,
- **Criterion C –** properties that embody the distinctive characteristics of a type, period, or method of construction, or that represent a significant and distinguishable entity whose components may lack individual distinction, or
- **Criterion D –** properties that have yielded, or may be likely to yield, information important in prehistory or history" (36 C.F.R. § 60.4).

Basis of Effect Significance

Per 36 C.F.R. § 800.5, an adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

Adverse effects to historic properties include, but are not limited to:

- Physical destruction, damage, or alteration, including moving the property from its historic location.

- Isolation from, or alteration of, the setting.
- Introduction of intrusive elements.
- Neglect leading to deterioration or destruction.
- Transfer, sale, or lease from federal ownership.

Criteria for assessing the eligibility for listing of the physical remains of water conveyance systems include size, length, and integrity (Hardesty and Little 2000). Character-defining elements of a water conveyance system may include the main intake structure, the conveyance structure (pumping station), the distribution system (ditch, flume, canals, sewers, storm drains, or pipelines), canal structures (drop chutes, check dams, head and diversion gates, culverts, weirs, inverted siphons); the materials (wood vs. steel vs. concrete), and the setting (rural versus urban).

Wastewater or sewage treatment plants are a specific sub-type of resources that form an important component of some water conveyance systems. Character-defining elements of wastewater or sewage treatment plants include steel or concrete reservoir tanks, storage reservoirs and storage dams, pumping stations, grit filters, rag filters, cyclones, classifiers, aeration tanks or basins, sedimentation tanks, and stabilization ponds (McVarish 2008:198-205).

In addition to archaeological and architectural resources, federal regulations define Traditional Cultural Properties as those that are eligible for the National Register because of their "association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community" (National Register Bulletin 38: Guidelines for Evaluation and Documenting Traditional Cultural Properties). Examples of traditional cultural properties are as follows:

- A location associated with the traditional beliefs of a Native American group about its origins, its cultural history, or the nature of the world.
- A rural community whose organization, buildings and structures, or patterns of land use reflect the cultural traditions valued by its long-term residents.
- An urban neighborhood that is the traditional home of a particular cultural group, and that reflects its beliefs and practices.
- A location where Native American religious practitioners have historically gone, and are known or thought to go today, to perform ceremonial activities in accordance with traditional cultural rules of practice.
- A location where a community has traditionally carried out economic, artistic, or other cultural practices important in maintaining its historic identity.

No Action Alternative

The No Action alternative would result in no short-term or permanent direct or indirect effects to cultural resources. The existing WRRF operation patterns and land use would remain the same. Under emergency conditions, the upper pond may be used for effluent storage. The Upper Pond and Mill Creek #1 Dam (S3410) has been determined impaired by NDEP and is considered a high-risk dam. Use of Pond #1 for emergency effluent storage poses a risk of dam failure and threatens downgradient cultural and historic resources.

Proposed Action Alternative

Construction of a 2 MG effluent tank and paved access road (Proposed Action) would have no direct effect on any archeological resources designated as historic properties, as there are no identified or previously recorded resources located within the APE.

The Proposed Action would have no indirect impact to architectural resources, as the only two resources recorded within the AII are not eligible for inclusion on the National Register under any criteria. Additionally, the new effluent storage tank will not be visible from any National Register eligible resource identified within one mile of the site.

Although no cultural resources were identified within the project area, adherence to the mitigation measure CR-1 would prevent and minimize effects to any previously unrecorded cultural resources that could be encountered during construction activities. There would be no significant effect to cultural resources from the Proposed Action.

3.4.3 Mitigation

No previously recorded or newly identified archaeological resources were identified in the ADI or AII and thus require no documentation of archeological resources for the project. The following mitigation measure is included in the event that previously undocumented cultural resources are found during construction.

MM CR-1. In the event that previously undocumented cultural resources are discovered during any project related ground-disturbing activities, the construction crew will immediately cease the activity in the vicinity of the find and in the procedures of 36 C.F.R. § 88 will be implemented. A qualified archaeologist approved by the USACE, NV SHPO, or TRPA will be consulted to evaluate the resource in accordance with Section 106 and TRPA criteria. Any necessary archaeological excavation and monitoring activities will be conducted in accordance with prevailing professional standards and the Federal Secretary of the Interior's Standards and Guidelines for Identification of Cultural Resources and Professional Qualifications (National Park Service 1983).

MM CR-2. In the event that previously undocumented human remains are discovered during any project related ground-disturbing activities, the construction crew will immediately cease activity in the vicinity of the find. USACE and the TRPA will notify the

county coroner to assess the finding and determine if they are Native American. If that determination is made, the State of Nevada Revised Statutes Section 383.170 will be followed. The discovery will be left in place and protected from excavation, vandalism, or destruction until the process outlined under § 383.170.1 is completed. The SHPO will immediately consult with the Nevada Indian Commission and notify the appropriate Indian tribe. The authorized tribe or their representative, in coordination with USACE, TRPA, and IVGID will inspect the burial site and recommend the appropriate means for the treatment and disposition of the burial site, human remains, and all associated funerary objects.

3.5 Hydrology and Water Quality

3.5.1 Affected Environment

Environmental Setting

Regional Hydrology and Water Quality

Lake Tahoe is renowned for its exceptional clarity and high-water quality. There are 63 streams in the Lake Tahoe Basin that feed Lake Tahoe and flow freely across varying land ownerships and governmental jurisdictions. Urbanization and development in the Lake Tahoe Basin have altered hydrologic patterns, resulting in increased sediment and nutrient loading, which can accelerate water quality degradation. Extensive regulatory efforts have been implemented to identify water quality concerns and develop effective management programs, including developing Lake Tahoe total maximum daily loads (TMDLs) to address the declining transparency and clarity of the lake.

Surface runoff from developed lands is the most significant source of pollutant loading for fine sediment particles (particles defined as less than 16 micrometers in diameter) and phosphorous, impairing Lake Tahoe water quality in both California and Nevada. Key management needs include preserving soil infiltration capacity, controlling erosion, restoring the natural environment, reducing nutrient loads from sewers and fertilizers, considering atmospheric nutrient deposition, and avoiding increased watershed channelization. Mandated and voluntary implementation of water quality control measures is ongoing in developed areas and new construction areas to protect the exceptional water clarity in Lake Tahoe.

Groundwater flow in the Tahoe Basin has been characterized by numerous studies investigating water supply and water quality issues. In general, groundwater is an important source of inflow to Lake Tahoe. The most productive aquifers in the Tahoe Basin are found in alluvium, glacial till, and outwash deposits (USGS, Ground-Water Resources Inventory of the Lake Tahoe Basin, 2007, and USGS, Scientific Investigations Map 3063, Hydrogeology of the Lake Tahoe Basin, 2009). The closest example is the Incline Village aquifer, encompassing much of Incline Village. The proposed project area is located slightly southeast of this aquifer

designation. Outside this aquifer, groundwater occurrence along the east slope of the Tahoe Basin is characterized by discontinuous areas of younger alluvium underlain by granitic and metamorphic rock (USGS, 2009). Because groundwater is a source of inflow to Lake Tahoe, protecting groundwater quality is also important to maintaining the clarity of Lake Tahoe.

The project area is located within the northern portion of the Tahoe Basin and within the TRPA delineated Mill Creek watershed. The steeply forested Mill Creek watershed is approximately 1,400 acres, extending 1.64 miles northeast from the mouth at Lake Tahoe through Incline Village to the crest of the Carson Range. The watershed is characterized by 30–50 percent slopes with soil characteristics described as very stony and gravelly loamy coarse sand.

The nearest surface water to the project area is Mill Creek, a tributary to Lake Tahoe and an intermittent stream located along the north side of the WRRF, outside of the proposed project area (Figure 1). The Nevada 2020-2022 Water Quality Integrated Report classifies Mill Creek as a Category 1 Stream, meaning that it attains the water quality standards to support all designated beneficial uses (NAC445A.1628 Truckee Region: Lake Tahoe Tributaries). Though the dam is named “Mill Creek Dam No. #1” it is not located on Mill Creek, and there is no defined channel to or from Mill Creek from the proposed project area. There will be no disturbance to Mill Creek from the Proposed Action.

Project Area Hydrology and Water Quality

On-site hydrology is characterized primarily by stormwater and snowmelt runoff that sheet flows from the WRRF and adjacent mountain slopes into and through Pond #1. Runoff from approximately 45 acres of the upper watershed is captured within the constructed Pond #1 formed behind on-site Dam No. 1 (NV DWR Dam No. NV 10376). The dam was commissioned in 1962 as part of the WRRF construction to be used for emergency effluent. The earthen dam spillway is a four-foot diameter drop inlet connecting to an 18-inch diameter culvert. The culvert discharges to a section of hillside armored with riprap downstream of the dam (Jacobs 2022). Pond #1 does not regularly hold water other than temporary ponding of stormwater runoff from the watershed. The current discharge point for Pond #1 is the spillway outlet located at the south end of the dam. The discharge pattern includes overland flow and runoff dissipation as it flows toward Ponderosa Ranch. The discharge flow rate from Pond #1 is estimated to be 5.5 cubic feet per second (cfs) for the 100-year storm event (Jacobs, 2022).

An Aquatic Resource Delineation Report was conducted by RCI in 2022 (RCI 2022) to identify potential wetlands and other regulated waters within the project area. The delineation did not identify any wetlands, and the on-site pond was verified by USACE as non-jurisdictional pursuant to the waste treatment system exemption 33 C.F.R. 328.3 (b).

The Proposed Action is located in an undesignated aquifer area (Plume, et al., 2009), previously designated as the East Shore (USACE 2003). The undesignated aquifer area includes

uplands on the east, southwest, and south sides of the basin, underlain mostly by igneous intrusive rocks (USGS, USDA, & USFS 2009). The length of the shoreline representing groundwater recharge on the East Shore extends south from the Incline Village Watershed to the state line in South Lake Tahoe (USACE 2003). The basin-fill is homogenous and generally made up of decomposed granite ranging in size from boulders and cobbles to fine sand. There are no groundwater wells with the project area. However, there are fourteen wells on the east side of the basin penetrated varying thicknesses of decomposed, fractured, and solid granite to depths ranging from 72 to 320 feet. Specific capacity of the wells ranged from 0.1 to 1.1 gallons per minute per foot.

A 2021 geotechnical exploration conducted by Jacobs Engineering Group, Inc included two test pit excavations in Pond #1 to a maximum depth of seven feet below ground surface. Groundwater was not observed in the recent test pits, nor was it encountered on previous soil boring exploration logs from the 1962 Pond #1 design project. Existing monitoring wells to a depth of approximately 40 feet are located on the slope below Pond #1 and are typically dry except during snowmelt periods when depth has been measured to be greater than 25 feet.

Regulatory Setting

Impacts to water quality, wetlands, modifications to hydrology, and watershed conditions are issues of concern to the public and regulating agencies. Measures to protect these resources are implemented by several federal, state, and local agencies as described below.

Federal Regulations

The Clean Water Act (CWA) is the federal law that regulates the discharge of pollutants into navigable waters. State water quality programs and regulations are chiefly the products of federal mandates and put into effect through the CWA and managed by the USEPA. The CWA requires states to establish numerical water quality criteria for a host of toxic discharges. Instream water quality objectives and standards are contained in the state's region-based water quality control plans, more often referred to as basin plans.

In addition to basin plans, Section 402 of the CWA requires state waterboards to administer the permits under the National Pollution Discharge Elimination System (NDPES). In part, this regulation requires that discharges of stormwater associated with construction activity disturbing more than one acre is regulated as an individual discharge and requires a permit.

Under Section 208 of the CWA, Nevada and the USEPA designated the TRPA as the area-wide water quality planning agency within the Lake Tahoe Basin. The TRPA adopted the 2012 Water Quality Management Plan (WQMP), which provides the framework for achieving desired water quality outcomes in the Lake Tahoe Basin. The WQMP includes the elements required by the EPA's regulations at 40 C.F.R. Section 130.6, which implements Sections 208 and 303(e) of the CWA for the Lake Tahoe Region.

The USEPA's Federal Antidegradation Policy (Section 316 of the CWA) provides the highest level of protection for Outstanding Natural Resource Waters (ONRW) and states that except for temporary changes, water quality may not be lowered in these waters. The USEPA has designated Lake Tahoe as a ONRW, stipulating that states may allow temporary and short-term changes to water quality such that these changes do not adversely affect existing uses or alter the essential character of the water.

Section 303(d) of the CWA requires states to compile a list of impaired water bodies that do not meet water quality standards and establish a TMDL for such waters. Lake Tahoe is listed under Section 303(d) as impaired by input of nitrogen, phosphorus, and sediment. In a joint effort, the NDEP and Lahontan Regional Water Quality Control Board developed a TMDL for water transparency in an effort to restore Lake Tahoe's historic deep-water transparency.

Section 404 of the CWA regulates the discharge of fill into waters of the United States. State and regional water quality programs are the products of federal mandates put into effect through the CWA and managed by the EPA. Section 401 of the CWA requires that states establish numerical water quality criteria for various toxic discharges. Under Sections 404/401, the USACE requires permits for deposition of material into regulated waters, including wetlands. There are no jurisdictional waters of the United States regulated under the CWA within the project area. No USACE 404 nor 401 permits are required for the Proposed Action.

State Regulations

The NDEP Bureau of Water Pollution Control (BWPC) protects the waters of the State from the discharge of pollutants in compliance with 445A of the NRS. The BWPC issues permits which enforce Section 402 of the Clean Water Act NPDES program and State of Nevada water pollution control laws and regulations. Discharges that may impact subsurface waters and other waters of the State, that are not covered under NDPES regulations, are permitted pursuant to State regulations as water pollution control permits that discharge to groundwater. Operations of the WRRF are permitted under an existing groundwater discharge permit, as wastewater discharge is transported out of the Lake Tahoe Basin. Implementation and long-term operation of the proposed effluent storage tank (Proposed Action) will be authorized under a modification of IVGID's current water pollution control permit.

The NDEP BWPC issues the General Construction Stormwater Permit (NVR100000) pursuant to 40 C.F.R. 122.26(b)(14) for projects which disturb more than one acre of land. Construction discharges are prevented from violating downstream water quality standards or interfering with beneficial uses. A critical element of the permit is the required development of a site-specific SWPPP designed to identify stormwater pollution sources, reduce impacts, and comply with the conditions of the General Construction Stormwater Permit. As the Proposed Action will disturb greater than 1-acre of land during construction, IVGID will obtain a General Construction Stormwater Permit and will comply with BMPs and erosion control measures stated in the SWPPP.

TRPA Plan and Code of Ordinances

Within the Tahoe Basin, the TRPA provides oversight for planning and natural resource protection in both California and Nevada. The TRPA's Regional Plan and Code of Ordinances specify policies and regulations directed at protecting and improving water quality in Lake Tahoe and other waters within the Tahoe Region. Specific to the IVGID's WRRF, direct discharges of raw or treated wastewater to Lake Tahoe are in direct violation of the Federal Antidegradation Policy and the Executive Order by the Governor of Nevada dated January 27, 1971, and TRPA Code of Ordinances 60.1.3. Together, these regulations mandate that all wastewater effluent discharge must be pumped out of the Tahoe Basin.

TRPA has also established Environmental Threshold Carrying Capacities specific to water quality that provide numerical and management standards for Lake Tahoe, Lake Tahoe tributaries, and stormwater runoff. The environmental thresholds in TRPA's Regional Plan and Code of Ordinances are used to establish the significance of an environmental effect to regional water quality in the Tahoe Basin.

These environmental thresholds include grading standards, water quality control and mitigation, source water protection, and BMP requirements. Specific policies relevant to protection of water quality during project implementation are included in Section 33: Grading and Construction and Section 60: Water Quality in the Code of Ordinances. The Proposed Action will be evaluated by TRPA for compliance with these codes and authorized under a Public Service and Recreation permit.

County Regulations

Applicable Washoe County regulations are included in Article 220, Appendix A of the Washoe County Tahoe Area Plan Development Code. These Codes are intended to implement the TRPA Regional Plan and sets forth special regulations to supplement and implement the general regulations set forth elsewhere throughout the Washoe County Development Code. The Washoe County Development Code (Chapter 110, Division 4) describes and regulates standards for storm drainage, hillside development, and grading. Design features required by Washoe County protect public health, safety, and the environment from being negatively affected by these activities. The Proposed Action will be authorized under a Major Grading Permit from Washoe County.

3.5.2 Environmental Consequences

Base of Significance

Impacts from an alternative would be considered significant if it would:

- Violate federal discharge requirements under Sections 404 and 402 of the CWA,
- Exceed TRPA environmental thresholds for water quality,

- Result in substantial loss of surface or groundwater sources, or interfere with groundwater recharge, or
- Substantially alter the existing drainage pattern of a site or area.

No Action Alternative

Under the No Action alternative, the effluent storage tank would not be constructed, and storage of effluent during maintenance of the effluent export line or emergency situations would be limited to the existing 0.5 MG steel tank and the 0.4 MG capacity aeriation basins. Combined, these facilities provide inadequate storage capacity to meet average daily flow from the WRRF. In emergency situations or with prolonged shut down of the export pipeline, the lack of adequate storage would require discharge of effluent water into the unlined ponds, potentially leading to the discharge of effluent wastewater over the dam spillway into Mill Creek and Lake Tahoe or infiltration of pollutants to groundwater.

Wastewater discharges to surface waters, including Lake Tahoe, would result in significant direct effects to water quality from violation of federal, state and TRPA discharge requirements and exceedance of the water quality standards set by TRPA's environmental thresholds. Additionally, indirect effects posed by potential failure of the "high hazard" dam on Pond #1 would not be alleviated. Failure of the dam, when impounding wastewater under emergency conditions or stormwater under flood conditions, would cause substantial erosion and would also exceed discharge standards. Direct discharges of raw or treated wastewater to Lake Tahoe are in direct violation of the Federal Antidegradation Policy, the Porter-Cologne Act, the Executive Order by the Governor of Nevada dated January 27, 1971, and TRPA Code of Ordinances 60.1.3. which mandate that all wastewater effluent discharge must be pumped out of the Tahoe Basin.

The continued need to store raw or treated wastewater in the unlined Pond #1 during emergencies could result in infiltration of pollutants into groundwater under storage conditions. Because groundwater is a significant source of inflow to Lake Tahoe, increased nutrients in groundwater potentially have a negative impact on Lake Tahoe water quality.

Proposed Action Alternative

The evaluation of potential hydrology and water quality effects associated with implementation of the Proposed Action was based on a review of background reports, applicable federal, state, TRPA, and local regulations, codes, and guidelines, as well as the submitted engineering plans, and consultation with project engineers. This analysis of impacts assumes that implementation of the Proposed Action will comply with all federal, state, and county required permits and TRPA Code.

Construction activities associated with the Proposed Action have potential to create temporary direct effects to water quality through increased soil exposure and potential for

erosion from stormwater runoff. Construction of the temporary access road and removal of the dam requires clearing and grubbing of vegetation, relocation of boulders, tree removal, excavation, and grading that would temporarily increase soil exposure to wind and water erosion. Once disturbed, the soils within the project area could become unstable and susceptible to increased rates of land surface erosion. Given the steep topography, lack of soil nutrients, and low precipitation during the summer months, successful long-term stabilization of soils disturbed by project construction could be difficult. To minimize erosion and sediment runoff from the site, temporary BMPs will be installed. BMPs include, but are not limited to, installation of construction fencing to reduce exposed soil, vegetation protection/buffers to minimize vegetation remove, filter fabric fencing or fiber rolls to reduce sediment runoff, stockpile protection (i.e., covering when not in active use), and dust control. Additionally, onsite staging of construction equipment and vehicles, construction-related vehicle trips, concrete washout stations, and on-site fueling with fuel trucks could lead to the potential for fuels and other construction-related chemicals to be accidentally spilled or leaked onto soils, which could runoff into nearby drainages during construction.

Groundwater is unlikely to be encountered unless construction is performed in the spring, where snowmelt could be infiltrating and seeping downhill toward Lake Tahoe. The Soils Hydrologic Report (Jacobs, 2023), as required by TPRA when excavation is deeper than five feet, demonstrates the Proposed Action will have no negative impact on ground water flow or direction and no dewatering plan is needed.

Compliance of the Proposed Action with the regulatory requirements for grading, drainage, and stabilization, as well as BMPs required to prevent stormwater runoff and management construction discharges will reduce potential effects to water quality to less than significant. Permanent BMPs are sized to accommodate the volume of a 20-year one hour storm event of one inch per hour and include:

- Construction of a 12-inch infiltration trench around the perimeter of the tank to capture runoff from the tank and allow for infiltration,
- Construction of a riprap lined ditch to capture and convey stormwater runoff from the WRRF around the perimeter of the site to a riprap energy dissipator on south side of site of new access road,
- Construction of the access road will include an asphalt dike along the upper paved section that conveys stormwater to a gravel infiltration trench along the road which coveys water to a discharge apron.

Permanent direct impacts to groundwater infiltration could result from the increase of impermeable surfaces from construction of the effluent storage tank, paved road surfaces, and slope embankments along the outer perimeter of the effluent storage tank, which are estimated to increase coverage by 5,647 square feet. To mitigate for the increase in impermeable coverage and offset impacts to water quality and groundwater infiltration, IVGID

will provide sufficient mitigation through the purchase of credits for equivalent area within the watershed or transfer credits from adjacent property. Any mitigation proposed will be reviewed and approved by TRPA as part of the Public Service Permit. Implementation of the proposed mitigation would reduce the impacts to less than significant.

The Proposed Action would provide a significant water quality benefit by eliminating the need for storage of wastewater in unlined Pond #1 and the potential discharge of effluent to groundwater or to surface water under emergency conditions. In addition, the removal of the high hazard dam eliminates the potential for severe erosion and downstream water quality impacts in the event of a dam failure. IVGID is pursuing the Proposed Action to satisfy their WRRF operating permit requirements, which ultimately benefits maintaining and protecting water quality in Lake Tahoe.

3.5.3 Mitigation

As designed, and with implementation of regulatory permit conditions and the following mitigation measures, the project will have less than significant effects on water quality or site hydrology.

MM-1. IVGID will comply with all applicable TRPA Code and special conditions as designated in TRPA approved plans and permit conditions (e.g., grading deadlines, temporary and permanent BMPs for water quality controls, stormwater runoff, and infiltration design standards) and demonstrate that there will be no significant impact to water quality or hydrology from the Proposed Action. The Proposed Action design is consistent with the standards provided in the TRPA BMP Handbook (TRPA Final Adopted Water Quality Management Plan)

MM-2. A TRPA approved Temporary BMP Plan will be prepared for the Proposed Action. The Temporary BMP Plan will be implemented during all phases of construction to minimize potential impacts and control sediment and pollutants in stormwater runoff to a level that meets waste discharge requirements and TRPA guidelines. Temporary BMPs will include, but are not limited to, installation of construction boundary fencing, filter fabric fencing, fiber rolls, stockpile management, track out pad, and dust control.

MM-3. A SWPPP will be prepared to comply with the Nevada Construction Stormwater General Permit. The SWPPP will describe the on-site erosion and sediment controls, means of waste disposal and storage, on-site fueling controls, chemical and hazardous material storage, implementation of approved local plans, and management controls unrelated to stormwater. Daily monitoring, maintenance, and reporting activities are required for compliance with the permit to prevent violation of discharge or water quality standards.

MM-4. Project design will comply with Washoe County Development Code including standards for grading, drainage, and site design (as designated under the Major Grading

Permit obtained for the Proposed Action) and demonstrates that there will be no significant impact to hydrology or water quality. Design features will include stormwater detention, infiltration, and conveyance to comply with regulatory requirements to prevent post-construction offsite impacts to hydrology or water quality.

MM-5. IVGID will comply with the TRPA land coverage mitigation program in accordance with Section 30.6 of the TRPA Code of Ordinances to purchase or transfer sufficient coverage of equivalent land classification for the offset the impacts to water quality from the increased on-site impermeable coverage.

3.6 Noise

This section describes typical characteristics of noise, including ambient sound, in the environment, the regulatory criteria developed to control unwanted noise, and the noise related effects of the proposed project.

3.6.1 Affected Environment

Environmental Setting

Noise Characteristics

The level of noise in a community change throughout the course of a day and over time, where noise sources and noise levels are typically controlled by the activities in the surrounding area. Sound is produced by the mechanical energy of a vibrating object and transmitted to your ear through a liquid or gas (e.g., air) by pressure waves. An A-weighted decibel (dBA) is used to express the loudness of a noise relative to the human ear, giving greater importance to sounds in the frequencies perceived by humans. The dBA value is used by planning and regulatory documents to set noise standards.

Sound is propagated uniformly from the originating source; however, sound waves and the resulting perceived dBA are influenced by the surrounding environment. The reduction of sound increases with more absorptive surfaces surrounding a sound source such as soft ground, terrain features, low vegetation, trees, and human-made physical barriers.

Existing Noise Sources

The area surrounding the proposed project area and access road is largely forested open space designated as Conservation land use within the Washoe County Tahoe Area Plan (2021). The primary sources of noise within the project area are occasional vehicle traffic traveling on Sweetwater Road and the operation of the Water Resources Reclamation Facility. Other noise sources, originating off-site, include vehicle traffic on SR-28, motorized watercraft on Lake Tahoe, and various residential noises (i.e., snow removal, landscaping, dogs barking, people talking, etc.).

Noise Sensitive Receptors

State and local agencies often identify noise-sensitive receptors, or areas, based on specific land uses. Examples of noise-sensitive receptors include residences, hospitals or health care facilities, schools, park/playgrounds, and libraries. The nearest noise-sensitive receptors to the project area are residential houses west of SR-28 located greater than 850 feet away.

Regulatory Setting

Federal Regulations

The Federal Noise Control Act of 1972 (42 U.S.C. § 4901 et seq.) requires all federal agencies to comply with federal, state, and local noise emission standards to protect the health and welfare of the public. In 1974, the USEPA published "Information on Levels of Environmental Noise Requisite to Protect Health and Welfare with an Adequate Margin of Safety." This document identified acceptable maximum environmental noise levels to protect public health and welfare against hearing loss, annoyance, and activity interference (USEPA 1974). The document is to provide a basis for state and local governments' judgements in setting standards for noise levels.

TRPA Code of Ordinances

Chapter 68 of the TRPA Code establishes the noise limitations for single noise events (i.e., aircraft, watercraft, motor vehicles, off-road vehicles, and over-snow vehicles) and community noise levels in the Tahoe region. The TRPA uses Community Noise Equivalent Levels (CNELs) to measure community noise levels. The CNELs, which are set forth in each plan area statement, set regional noise threshold requirements based on land use and frequency of events. The project area is identified in the Washoe County Tahoe Area Plan as the Ponderosa Ranch Mixed-Use Area and has a CNEL of 65 dBA.

This Chapter also provides exemptions for construction and maintenance activities occurring between the hours of 8 a.m. and 6:30 p.m. (TRPA Code Chapter 68.9).

County Regulations

The project area is identified in the Washoe County Tahoe Area Plan as the Ponderosa Ranch regulatory zone, which has been assigned the Mixed-Use land use category. The Washoe County Development Code codifies the maximum CNEL standards as defined by the TRPA Code of Ordinances for the Tahoe Planning Area. Washoe County Code is consistent with the TRPA Code of Ordinances.

3.6.2 Environmental Consequences

Basis of Significance

Noise impacts from the Proposed Action were evaluated based on federal, state, and regional/local guidelines for noise impacts. Impacts were considered significant if the alternative would:

- Result in a CNEL to be exceeded beyond permitted levels,
- Impact sensitive noise receptors, or
- Result in a single-event noise standard provisioned by the TRPA Code to be exceeded.

No Action Alternative

The No Action alternative would have no construction of an effluent tank or access road and would not generate temporary noise; there would be no significant impacts from noise.

Proposed Action Alternative

Construction activities associated with the Proposed Action would have temporary noise effects from site preparation (e.g., clearing and grubbing, excavation, grading), foundation work, trenching, road paving, and construction of the tank. These activities would require use of noise generating construction equipment such as excavators, loaders, a forklift, a crane, and various haul trucks. These types of equipment typically generate peak noise levels ranging between 70 to 85 dBA within 50 feet (FHA DOT 2018) and exceed the plan area CNEL. To reduce increased noise levels caused by construction, BMPs for noise will be implemented, such as maintaining equipment in good working order, adequately muffling equipment, and minimizing idling of construction equipment. Additionally, construction activities will be limited to the hours 8 a.m. to 6:30 p.m. consistent with the TRPA code that exempts construction and maintenance activities occurring within that timeframe. The increase in noise levels from construction activities would be temporary in duration and consistent with TRPA and Washoe County regulations; therefore, impacts are considered to be less than significant.

Long-term operation of the proposed effluent storage tank would generate minimal, temporary noise during routine maintenance that are not anticipated to exceed the community plan CNEL and would be completed between 8 a.m. to 6:30 p.m., except in emergency situations.

There are no sensitive noise receptors adjacent to or within proximity to the project area. The Proposed Action would have no effect on sensitive noise-receptors. The Proposed Action would not result in any changes to single-event noise standards as identified in the TRPA Code of Ordinances for aircraft, watercraft, motor vehicles, motorcycles, off-road vehicles, and over-snow vehicles.

3.6.3 Mitigation

Implementation of the Proposed Action is consistent with the TRPA and Washoe County regulations on noise and therefore no mitigation is required.

3.7 Socioeconomics and Environmental Justice

Socioeconomics refers to the social and economic aspects of the proposed action. Environmental justice, in reference to development and implementation, is the fair treatment and involvement of all people regardless of their race, color, national origin, or income.

3.7.1 Affected Environment

Environmental Setting

The project area is located in Incline Village, Nevada at the westernmost edge of Washoe County, and within the Lake Tahoe Basin area. The location of Incline Village within the Lake Tahoe Basin makes the characteristics of the community unlike the rest of Washoe County or the state of Nevada. The Lake Tahoe area, of which Incline Village is a part of, is known world-wide as a travel and recreation destination where the main economy is tourism.

According to the 2020 census data, the population of Incline Village was 9,462 individuals and 7,367 housing units with 56.6% occupancy. Demographic characteristics are described in the table below, which compares population data, income, and housing statistics collected in the 2020 or 2021 US Census between Incline Village, Washoe County, and the state of Nevada. This information indicates that 77.7% of the Incline Village population identifies as white ethnicity, this is 18.5% higher than the rest of Washoe County (59.2%) and 26.5% higher than the entire state of Nevada (51.2%).

Median household income (MHHI) in Incline Village is $131,914 annually, which is 199% of the MHHI for the rest of Nevada ($66,274). Washoe County's MHHI is $76,220, which is 115% of the MHHI for the rest of Nevada. The 2021 census found that 6.4% of the population of Incline Village was below the Federal Poverty Level (FPL) in 2021, which is 4.8% lower than Washoe County (11.2% below the FPL) and 7.7% below the entire state of Nevada (14.1%).

Table 3-6. Select Demographic Characteristics of Incline Village, Washoe County and Nevada.

Selected Demographic Characteristics	Incline Village CDP*	Washoe County CDP	State of Nevada
Population, 2020 estimates	9,462	486,492	3,104,614
White persons not Hispanic, percent, 2020	7,351 (77.7%)	287,862 (59.2%)	1,588,463 (51.2%)
African Americans, percent, 2020	31 (0.3%)	11,527 (2.4%)	304,739 (9.8%)
American Indian and Alaska Native persons, percent, 2020	53 (0.6%)	5,790 (1.2%)	43,932 (1.4%)
Asian persons, percent, 2020	227 (2.4%)	28,063 (5.8%)	272,703 (8.8%)
Native Hawaiian and other Pacific Islander, percent, 2020	17 (0.2%)	3,250 (0.7%)	25,011 (0.8%)
Two or more races, percent, 2020	1,125 (11.9%)	25,311 (5.2%)	434,009 (14.0%)
Homeownership rate, 2021	70.7%	59.9%	59.1%
Median household income, 2021	$131,914	$76,220	$66,274
Median household income, percent of State MHHI, 2021	199%	115%	100%
Persons below poverty level, percent, 2021	6.4%	11.2%	14.1%
Unemployment rate, March 2023	3.4%	4.4%	5.5%

*A Census Designated Place (CDP) is a concentration of population identified by the US Census Bureau for statistical purposes. Data taken from the 2020/2021 US census, found at the US Census Bureau website located at: US Census Bureau Quick Facts.

According to USEPA Environmental Justice Screening and Mapping Tool (EJScreen), the area surrounding the project site is sparsely populated and a very small percentage of the population falls below poverty level (6.4%). The local area has a low unemployment rate of 3.4% as of March 2023. Socioeconomic indicators in the Incline Village area that include unemployment, population with a less than high school education, and levels of pollutants (e.g., diesel particulate matter, proximity to hazardous waste, PPM 2.5, and proximity to a superfund site) are below the 70th percentile relative to the rest of the United States (U.S. Census Bureau 2023).

Regulatory Setting

Executive Order 12898 (59 F.R. § 7629 – Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) was issued in 1994 to work toward achieving environmental protection for all communities, particularly minority and disadvantaged communities. The Executive Order directs federal agencies to address adverse human health or environmental effects related to their actions that impact minority or low-income communities, and to develop a strategy for implementing environmental justice.

Additionally, responsibilities under this Executive Order shall also apply to Native American programs. Federal agencies must make public documents, notices, and hearings available to access.

3.7.2 Environmental Consequences

Methodology

Information about the socioeconomic and environmental justice indicators including ethnicity, income, education, and environmental pollution were collected from the USEPA Tool EJScreen and the 2020/2021 census (US Census Bureau 2023). Multiple demographic variables were analyzed to assess the effect of the Proposed Action on the surrounding community; variables include population density, ethnicity, MHHI, unemployment, limited English speaking, proximity to hazardous waste, PPM 2.5, traffic proximity, diesel particulate matter, and underground storage tanks.

Basis of Significance

The primary issues considered for the socioeconomic environment include the effects that the project alternatives would have on residents, communities, and economics surrounding the project area. Actions that result in population changes, residential housing relocations, losses to businesses or jobs, or changes to public services that are incompatible with local agency plans would result in a significant effect.

No Action Alternative

Under the No Action alternative, USACE would not fund construction of the new concrete effluent storage tank and no construction would occur. There would be no adverse environmental or human health conditions created by the No Action alternative; therefore, no minority or low-income communities would be disproportionately affected.

Proposed Action Alternative

Current demographics show minority populations are comparably low in the surrounding community. Similarly, the median household income in the project area is above that of the surrounding county and the rest of the state. Reviewing the location, scope, and nature of the proposed activity in relationship to non-federal land, there is no evidence to suggest that any minority or low-income neighborhood would be affected disproportionately. Conversely, there is no evidence that any individual, group, or portion of the community would benefit unequally from the proposed action.

3.7.3 Mitigation

The Proposed Action or No Action alternative would not result in significant effects to socioeconomics of the area or region or disproportionately affect minority or low-income communities; therefore, no mitigation is proposed.

3.8 Traffic And Transportation

This section describes the existing roadways and traffic conditions within and surrounding the project area. Once constructed, the proposed effluent storage tank will not generate new traffic, nor will it impact roadways. Upon completion of the Proposed Action, there will be no increase in vehicle trips, nor will there be an increase in VMT in the Tahoe Basin. Therefore, the analysis focuses on an evaluation of the potential impacts of the Proposed Action on traffic flows during the construction phase of the proposed project.

3.8.1 Affected Environment

Existing Environment

The proposed project area is located adjacent to the IVGID WRRF approximately 0.25 miles east of SR 28 in the northeast portion of the Lake Tahoe Basin. SR 28 is a two-lane highway linking Incline Village and the North Lake Tahoe communities to the east shore of Lake Tahoe to its terminus at United States Highway 50 (US 50). SR 28 is the only major roadway along the northeast shore of Lake Tahoe (Figure 1). Traffic volumes on SR 28 vary by season and time of day. While there is some commuter traffic on the roadway throughout the year, the highest volumes of traffic occur during summer months and is generated by recreational motorists. According to the Nevada Department of Transportation (NDOT) Annual Traffic Reports for 2021, the estimate Annual Average Daily Traffic volume (AADT) on SR 28 at point 0.25 miles north of US 40 was approximately 8,250.

Access to the project site from SR 28 is along Sweetwater Road, a local two-lane paved road providing access to the Incline Village Transfer Station (IVTS), Incline Village Maintenance Buildings, and the WRRF. Sweetwater Road is owned and maintained by IVGID. The road is commonly used by residents of Incline Village to access the IVTS to dispose of construction and demolition debris and by IVGID employees to access the WRRF, maintenance facility and offices.

From Sweetwater Road, access to the project site will be from an improved existing dirt access road located along the south side of the WRRF to Pond #1. This road is owned and maintained solely by IVGID, and no public access is allowed.

3.8.2 Environmental Consequences

Basis of Significance

An alternative would be considered to have a significant effect on traffic if it would:

- Result in a substantial increase in traffic volume,
- Create an increase in safety hazards on area roadways, or
- Cause substantial deterioration of the physical condition of the residential roadways.

No Action Alternative

Under the No Action alternative, USACE would not fund construction of the new concrete effluent storage tank and no construction would occur. The No Action alternative would not result in an increase in traffic during construction, create any safety hazards on area roadways, or cause a deterioration of physical conditions of residential roadways. Therefore, the No Action Alternative would generate no direct, indirect, or cumulative effects to traffic.

Proposed Action Alternative

Implementation of the Proposed Action would result in minor increases in traffic during construction. Project construction would require a temporary increase in haul trucks utilizing SR 28 and Sweetwater Road for tree removal and bringing construction materials such as concrete, steel, and fuels to the site. Site clearing prior to construction requires approximately 32 pine trees over 14 inches dbh and understory shrubs to be cut and hauled off site. Removal of trees is anticipated to occur in May 2024 outside of peak tourism season and will have minimal impact to traffic. On-site excavation and grading are anticipated to result in a near balance of cut and fill with little to no need to haul excess material off-site. The use of haul trucks to remove excess fill is anticipated to be minimal and have negligible effects on traffic volume.

Construction of a pre-stressed concrete tank and tank foundation will require approximately 600 cubic yards of concrete, which equates to approximately 70 loads using haul trucks. As this would occur over multiple months (June - October), the average daily increase in truck traffic would be minimal. A minor increase in traffic would occur due to the temporary increase in daily workers. As needed, traffic control would be assisted by flagmen at the intersection of Sweetwater Road and SR 28. Spotters will be used for large vehicle turning movements entering/exiting the site access road to minimize safety hazards. No lane closures or traffic delays would occur due to construction operations.

Potential impacts to traffic and transportation from construction activities are anticipated to be similar in scope to traffic impacts routinely caused by semi-trucks hauling raw materials and goods into the community. The Proposed Action would not have a substantial increase in

traffic volumes during construction. No substantial deterioration of the physical condition of the public roadways is anticipated beyond normally occurring wear and tear.

Use of the proposed staging area on the north side of Sweetwater Road would have temporary, localized impacts to traffic from large haul trucks and equipment moving into and out of the staging area and onto Sweetwater Road. However, this staging area is located north of the turnoff to IVTS and is not available for public traffic. Impacts to traffic along this segment of Sweetwater Road would occur only to those IVGID employees and visitors to the WRRF Offices and Maintenance Buildings.

A second construction staging area is in the lower parking lot at Diamond Peak Ski Resort. The staging area is located approximately 2.5 miles northwest of the project site and accessed via SR 28 and Sky Way Road, which winds through residential development. Haul trucks will be used to transport materials to and from the lower parking lot at Diamond Peak to the project area. Traffic impacts to this staging area are expected to be minimal and may include short-term delays for residents, hikers, and mountain bikers who travel by automobile to utilize the various trail systems which connect to Diamond Peak. With implementation of the proposed mitigation measures, effects to traffic would be minor and temporary during construction.

3.8.3 Mitigation

The following mitigation measures will be implemented to minimize effects to traffic during construction to less than significant:

MM TT-1. Place proper signage to warn and direct traffic, including signalmen, if necessary.

MM TT-2. Provide temporary passage and access to properties along Sweetwater Road (IVTS for customers, IVGID WWRF, and private property).

MM TT-3. The Contractor will be responsible for coordination with Washoe County, Incline Village, NDOT, TRPA, and other responsible agencies to reduce adverse effects on traffic.

3.9 Hazardous, Toxic, and Radioactive Waste

This section describes the existing conditions and assessment of potential environmental impacts from hazardous wastes used or generated by the No Action and Proposed Action alternatives. Hazardous materials include those used during construction or from ongoing operation of the No Action or Proposed Action alternatives and any contaminated sites that may be encountered during the construction phase of the Proposed Action.

3.9.1 Affected Environment

Environmental Setting

The project area is located in the footprint of the existing Pond #1 effluent storage reservoir and is adjacent to the IVGID WRRF that treats solid and liquid waste from the Incline Village and Crystal Bay communities. To consider possible encounters with hazardous, toxic, and radioactive wastes (HTRW) during the Proposed Action, all sites within a 1-mile radius of the project site that are regulated and report to the USEPA were inventoried for this EA. There are two sites with active Resource Conservation and Recovery Act (RCRA) permits; these include IVGID and an independent trucking company. The IVGID has an RCRA permit for municipal operations, including general automobile repair, sports centers, golf courses, irrigation, and the administration of municipal management programs, but does not include operation of the WRRF. The trucking company RCRA permit is listed for the storage of used motor oil. These two sites will not be impacted by the Proposed Action or No Action alternative.

Regulatory Setting

HTRWs include waste materials with properties that are dangerous for human health or the environment and meet one or more of the following characteristics: ignitability, corrosivity, reactivity, toxicity, and radioactivity (40 C.F.R. § 261). Hazardous waste sites that include solid wastes are regulated under the RCRA (42 U.S.C. § 6901-6992k) which establishes guidelines for solid waste management, regulates waste generation, treatment, storage, and disposal. Publicly owned wastewater treatment units such as the IVGID WRRF are exempt from RCRA requirements for the treatment and storage of effluent (40 C.F.R. § 260.10). In terms of the Proposed Action, guidance provided by the RCRA covers requirements regarding spills and cleanup should hazardous materials being stored on-site during construction spill outside of a secondary containment system; this guidance excludes hazardous materials that may be used for effluent treatment or the storage of effluent.

TRPA Regional Plan – Water Quality Subelement has policies to limit or eliminate point sources of pollution; these are enacted through the TRPA Code of Ordinances (Policy WQ-2.1). The TRPA Code of Ordinances has primary use types, that consider wastewater treatment facilities such as the WRRF as “Public Utility Centers”, thereby wastewater treatment facilities are expected to maintain and update equipment and infrastructure to minimize any risk of spills or releases to the environment. Wastewater discharge into Lake Tahoe, within 100 feet of the high-water rim of Lake Tahoe or within 100 feet of a stream, reservoir, spring, well, or other water supply, is prohibited by Nevada law (NRS 445A.175) and is part of the regulatory structure of the TRPA Regional Plan goals and policies.

Implementation of the Proposed Action requires greater than one acre of ground disturbance and authorization under the General Construction Stormwater Permit issued by the NDEP BWPC and includes a site-specific SWPPP (40 C.F.R. 122.26(b)(14)). A component of a

SWPPP includes the identification of potential pollutant sources and a spill prevention and response plan for activities related to construction.

3.9.2 Environmental Consequences

Basis of Significance

An alternative would be considered to have a significant effect if it would:

- Contaminate the physical environment, posing a hazard to people, animals, or plant populations, or
- Involve substances identified as potentially hazardous.

No Action Alternative

Under the No Action alternative, the 2 MG effluent storage tank would not be constructed. Continued standard operation of the WRRF would have no effect on the environment from release of hazardous wastes. However, during emergency situations, or when the export line is shut down for prolonged periods for repair or maintenance, the existing on-site storage capacity is inadequate to meet storage demands. Under these situations, use of the unlined Pond #1 for temporary effluent storage may occur, resulting in potential discharge of effluent overflow to surface waters or infiltration to groundwater. Pond #1 is an unlined reservoir and has an earthen dam (Mill Creek Dam No. 1) that has been deemed a high hazard dam by the Nevada Department of Water Resources, Division of Dam Safety; its use for effluent storage has the potential to impact water quality in Lake Tahoe and the surrounding environment. These discharges would result in significant environmental impacts to the environment with the potential to harm people, animals, or plant populations.

Proposed Action Alternative

The Proposed Action activities includes construction of a prestressed concrete tank, operation of heavy machinery, and installation of a partially paved access road requiring the use and on-site storage of small quantities of hazardous wastes such as petroleum products, asphalt products, concrete curing compounds, and paints. The on-site storage of these hazardous waste products will be temporary (less than 6 months) and includes the use of proper containment and adequate spill prevention procedures to prevent spills, leaks, and materials being discarded into nearby drainages during construction.

Construction of the Proposed Action requires preparation of a SWPPP under the Construction General Permit. These are procedures and practices designed to reduce or eliminate potential for the release of hazardous materials. These practices include but are not limited to:

- Storage of hazardous materials (i.e., fuels, oil, grease, concrete curing compounds, etc.) within approved watertight containers and installation of secondary containment measures,
- Fueling areas will be located away from water courses and protected from stormwater run-on and runoff,
- Application of concrete curing elements will not occur during wet weather or when rain is forecasted,
- Maintaining concrete washouts in good condition to ensure no leaks occur and locating concrete washouts away from on-site drainages, and
- Spill kits will be readily available on-site and employees will be trained in emergency spill cleanup procedures.

Adherence to the SWPPP and BMPs required under the Construction General Permit will serve to avoid potential spills and minimize the potential for environmental impacts from hazardous materials. There will be no significant environmental effect from hazardous materials with implementation and compliance with the SWPPP and Construction General Permit.

3.9.3 Mitigation

The environmental impact analysis assumes adherence to the Construction General Permit procedures and no short-term construction related impacts from hazardous materials are anticipated. The long-term operation of the Proposed Action will not introduce any additional hazardous materials. The installation of the prestressed concrete effluent tank, new pump, and new piping will serve to improve the existing WRRF infrastructure to minimize risk of effluent release to the surrounding environment. No mitigation measures are warranted.

3.10 Aesthetics

This section describes the visual setting in the project area and the potential effects to aesthetics from the proposed Action Alternative.

3.10.1 Affected Environment

Environmental Setting

The project area is located within an 87-acre parcel adjacent to IVGID's WRRF and the Public Works Building/Yard. The project area and access road are surrounded by steeply sloping upland forest on all sides, except to the north where the WRRF is located. Specifically, the tank will be constructed within the existing effluent Pond #1 once the pond is regraded and elevation lowered (Figure 5).

The surrounding land uses are the Ponderosa Ranch to the west, south and east, IVGID Diamond Peak to the northeast, Tyrolian Village to the north and general industrial uses to the west along SR 28 frontage.

The project area is approximately 0.2 miles east and 150-feet upslope of SR 28, a designated National Scenic Byway, and over 0.75 miles east of Lake Tahoe at its closest point.

Regulatory Setting

The TRPA Code of Ordinances (2022) includes several chapters intended to protect visual resources and uphold the goals established in the Threshold Standards and Regional Plans (2021). The Proposed Action has been designed to TRPA Code and Ordinances relating to height, visual characteristics, and scenic quality, and will be reviewed by TRPA for compliance with TRPA Code and Ordinances prior to being granted a permit to build.

3.10.2 Environmental Consequences

Basis of Significance

- Be visible from any designated state or federal scenic highway.
- Compliance with TRPA Code and Ordinances and Washoe County design standards

No Action Alternative

Under the No Action alternative, the effluent storage tank would not be constructed and operation of the WRRF and use of the effluent storage ponds would remain the same. The No Action alternative would not have any impact to aesthetics.

Proposed Action Alternative

Project design will comply with TRPA and Washoe County design standards. Plans will be reviewed for conformance with all applicable standards by TRPA under the Public Service Permit and by Washoe County under the Building Permit application process.

Implementation of the Proposed Action Alternative will result in temporary visual impacts from construction equipment that will be visible from SR 28. Impacts will be short term and minimal as the project area is located 0.2 miles east and upslope of SR 28.

The long-term presence and operation of the effluent storage tank will be visible briefly from SR 28 while traveling north. To minimize impacts to the natural aesthetics surrounding the project area, the tank will be painted in a matte dark color to blend with the surrounding forest. Additionally, upon completion of project construction, all temporarily disturbed areas will be stabilized through placement of a mulch and pine needle blend covered by erosion control material and interspersed with boulder groupings that will mimic the existing undisturbed slopes. Final site stabilization will be reviewed and approved by TRPA for compliance with

permit conditions. As such, there will be no significant impacts to aesthetics from the proposed project.

3.10.3 Mitigation Measures

The following mitigation measures will be implemented to minimize effects to aesthetic resources during construction to less than significant:

MM AR-1. The tank will be painted a matte dark color approved by TRPA to better camouflage with the surrounding slopes.

MM AR-2. Final site stabilization will mimic the existing undisturbed slopes by covering the disturbed areas with four inches of a mulch and pine needle blend covered by erosion control material and interspersed with boulder groupings.

4 Cumulative and Growth-Inducing Effects

4.1 Growth-Inducing Effects

Construction of an effluent storage facility would not induce growth in or near the project area. The proposed effluent storage tank will not increase the overall treatment capacity of the WRRF or ability to serve a larger customer base than what is already authorized under existing permits. Implementation of the Proposed Action is consistent with local land use and will not require an increase in employment at the WRRF.

4.2 Cumulative Effects

NEPA requires the consideration of cumulative effects of the Effluent Storage Tank Project combined with the effects of other projects. NEPA defines a cumulative effect as the effect on the environment which results from incremental effect of an action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such actions (40 C.F.R. Part 1508.1(g)(3)). The extent of the geographic area that may be affected varies depending on the resource under consideration.

The Proposed Action is anticipated to have no effect on recreation, land use, farmlands, cultural resources, socioeconomics, or environmental justice. There will be no cumulative effects to these resources.

The project would have less than significant impacts to air quality, biological resources, hydrology and water quality, noise, traffic and transportation, and hazardous materials, primarily due to short-term construction activities. The projects considered below are limited to those that have similar potential effects and could interact with impacts generated by the proposed project.

4.2.1 Federal Projects

Other federally funded projects that are likely to occur in vicinity of the project area include:

1) *IVGID Effluent Export Pipeline Phase 2 Replacement Project (2023 - 2026)*

   The effluent export pipeline project proposes to replace approximately 30,000 linear feet of effluent pipeline within portions of SR-28 road shoulder. Construction is anticipated to occur seasonally for four years between 2023 and 2026.

4.2.2 Local Projects

1) *NDOT SR 431/SR 28 Road Improvement Project (2021 – 2023)*

   A multi-year project to enhance the existing roadway and utility system along SR 431 and 28 to help preserve pavement and protect Lake Tahoe. The first two years of construction highway improvements were for six miles of Mt. Rose highway near the summit, including replacement of barrier rail, new detention basins and drainage improvements on SR-28. In 2023, construction will continue with conduit line installation, repaving of six miles of SR 28, repaving additional sections of SR 431, and select road shoulders will be reconstructed and flattened.

2) *SR-28 Shared Use Path, Parking, Safety and Environmental Improvement Project (2020 – on-going future phases)*

   The project includes construction of an eight-mile class 1 shared use path located along the east shore of Lake Tahoe between Sand Harbor State Park and Spooner in Washoe County, Carson City, and Douglas Counties. The first segment was completed in 2020.

4.2.3 Effects Analysis

Implementation of the Proposed Action would result in cumulative effects to resources during construction activities if all the above listed projects were to occur concurrently with the Proposed Action. Phase 2 of the IVGID Effluent Export Pipeline will be in construction during the Proposed Action but Phase 2 will be constructed overnight and will not result in added cumulative effects. All potential effects identified by the Proposed Action are determined to be less than significant and would be short-term and localized within the project area. When these project specific effects are considered in the context of other past, present, and reasonably foreseeable future projects, the cumulative effects would also be less than significant.

5 Compliance with Environmental Laws and Regulations

Certain federal laws and regulations require issuance of permits before project implementation; other laws and regulations require agency consultation but may not require

issuance of any authorization or entitlements before project implementation. All actions proposed in this document would be consistent with all applicable federal law and regulations

5.1 Clean Air Act of 1972 (42 U.S.C. § 1877, et seq.), as amended (42 U.S.C. § 7401 et seq.)

Full compliance. The Federal CAA requires the USEPA to establish NAAQS. The USEPA has established primary and secondary NAAQS for the following criteria air pollutants: ozone, PM_{10}, $PM_{2.5}$, CO, NO_2, SO_2, and lead. The NAAQS primary standards protect public health, and the secondary standards protect public welfare. The CAA also requires each state to prepare an air quality control plan, referred to as a State Implementation Plan.

The Effluent Storage Tank Project will not violate any Federal or State air quality standards, exceed the USEPA's general conformity *de minimis* threshold, or hinder the attainment of air quality objectives in the local air basin.

5.2 Clean Water Act of 1972, as amended (33 U.S.C. § 1251 et seq.)

Full compliance. All Federal agencies must comply with the provisions of the CWA, which regulates all project activities within and adjacent to Federal waters. Under Section 208 of the CWA, the State of Nevada, and the USEPA designated the TRPA as the area-wide water quality planning agency within the Lake Tahoe Basin. The TRPA adopted the 2012 WQMP, which provides the framework for achieving desired water quality outcomes in the Lake Tahoe Basin. The WQMP includes the elements required by the EPA's regulations at 40 C.F.R. Section 130.6, which implements Sections 208 and 303(e) of the CWA for the Lake Tahoe Region. The project complies with the Lake Tahoe (208) Water Quality Management Plan (TRPA 2013).

Pursuant to Section 402 of the CWA, IVGID will obtain a Construction Stormwater General Permit (General Permit) administered by the Nevada Department of Environmental Protection (NDEP) Bureau of Water Pollution Control. The General Permit requires development of a Stormwater Pollution Prevention Plan (SWPPP) that will specify implementation of BMPs for erosion and sediment control during construction for the protection of water quality.

5.3 Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 et seq.)

Full compliance. In accordance with Section 7(c) of the Endangered Species Act, the USFWS list of endangered and threatened species that may be affected by projects in the Lake Tahoe Basin Management Area was reviewed (September 26, 2018, and January 12, 2023). The Effluent Storage Tank Project would have no effect on listed species and no further consultation with the USFWS is required.

5.4 Executive Order 11988, Floodplain Management

Full compliance. EO 11988 was signed into law on May 24, 1977, requiring that Federal agencies provide leadership and take action to restore and preserve the natural and beneficial values served by floodplains. Before proposing, conducting, supporting, or allowing an action in the floodplain, each Federal agency must determine if planned activities would affect the floodplain and evaluate the potential effects of the intended action on the floodplain's functions. To comply with this Executive Order, the policy of USACE is to formulate projects which, to the extent possible, avoid or minimize adverse effects associated with use of the without-project flood plain, and avoid inducing development in the existing flood plain unless there is no practicable alternative. The Proposed Action is not listed within a 100-year Flood Zone. There will be no modification or destruction of floodplains.

5.5 Executive Order 11990, Protection of Wetlands

Full compliance. This order directs federal agencies to avoid adverse impacts to wetlands from both destruction or modification, and to avoid support of new construction within wetlands. The Effluent Storage Tank Project does not propose new construction in any existing wetlands, or the destruction of wetlands.

5.6 Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

Full compliance. This order directs all federal agencies to identify adverse effects of the proposed actions on minority and low-income populations and to develop a strategy for implementing environmental justice. Section 3.7 of this EA reviewed the location, scope, and nature of the proposed activity. There is no evidence to suggest that any minority or low-income neighborhood would be affected disproportionately. Conversely, there is no evidence that any individual, group, or portion of the community would benefit unequally from the Proposed Action.

5.7 Migratory Bird Treaty Act (15 U.S.C. § 701-18h et seq.)

Full compliance. Migratory birds are protected and managed under the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. § 703 et. seq.) and Executive Order 13186. The statute includes prohibition, unless permitted by regulation, to " pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export, any migratory bird, any part, nest, or egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof,

included in the terms of the conventions [for the protection of migratory birds]." 16 U.S.C. § 703(a).

Removal of any nesting vegetation will be timed to avoid any physical destruction of active bird nests or known nesting sites of any known migratory bird species within the Tahoe Basin. If construction commences during nesting season, March 1st- August 31st, a nesting bird survey will be conducted a minimum of a week in advance. Additionally, a survey will be conducted 24 hours in advance of the construction, to ensure no active nests are present. If active nests are located, USFWS will be contacted for Migratory Bird Treaty Act coordination.

5.8 Bald and Golden Eagle Protection Act (16 U.S.C. § 668 et seq.)

Full compliance. The Bald and Golden Eagle Protection Act prohibits any form of possession or taking of either bald eagles or golden eagles. In 1962, the act was amended to create a specific exemption for possession of an eagle or eagle parts (e.g., feathers) for religious purposes of Indian tribes. Rule changes made in September 2009 finalized permit regulations to authorize limited take of these species associated with otherwise lawful activities. These new regulations establish permit provisions for intentional take of eagle nests under particular limited circumstances (USFWS, 2009). There is no suitable nesting habitat for the golden or bald eagle within the project area. The nearest known bald eagle nest is located at Marlette Lake, approximately four miles southeast of the project area (Mark Enders, 2023). There is one reported known location for golden eagle in the Tahoe Basin located at Lower Prey Meadows approximately eight miles south of the project area (USFS 2019).

5.9 Fish and Wildlife Coordination Act of 1936, as amended (16 U.S.C. § 661 et seq.)

Full compliance. The Fish and Wildlife Coordination Act requires federal agencies to take into consideration the effect that water-related projects would have on fish and wildlife resources and provide for the development and improvement of these resources. The Act provides the basic authority to the USFWS for involvement in evaluating impacts to fish and wildlife from the proposed project. Federal agencies that construct, license, or permit water resource development projects must consult with USFWS and state agencies regarding anticipated impacts. The Effluent Storage Tank Project does not create any modifications to water resources that would affect fish or wildlife habitat.

5.10 National Environmental Policy Act of 1969, as amended (42 U.S.C. § 4321 et seq.)

Full compliance. This Final EA is in compliance with the National Environmental Policy Act of 1969, as amended. Effects during construction will either be less than significant or mitigated

to less than significant using avoidance and minimization measures as indicated throughout the document. Therefore, an EIS is not required. The FONSI can be signed by the Commander.

5.11 National Historic Preservation Act of 1966, as amended (54 U.S.C. § 300101 et seq.), Historic and Archeological Resources Protection Act (16 U.S.C. § 470AA et seq.), Protection of Historic Properties (36 CFR § 800)

Full compliance. This project would follow the implementing regulations for the Section 106 process under 36 C.F.R. § 800. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effect of a project on any district, site, building, structure, or object that is included in, or eligible for inclusion in, the National Register of Historic Places. The National Historic Preservation Act (Public Law 89-665, as amended) also requires federal agencies to afford the SHPO a reasonable opportunity to comment. USACE consulted with the SHPO for this undertaking on August 15, 2023, requesting their review of USACE's identification and evaluation efforts for historic properties and providing a finding of No Historic Properties Affected (36 C.F.R. § 800.4(d)(1)). USACE submitted supplementary information to the SHPO in letters dated October 4, 2023, and anticipates a response with concurrence on a finding of No Historic Properties Affected (36 C.F.R. § 800.4(d)(1)) for the undertaking in October 2023.

6 Coordination of the Final EA

USACE and RCI coordinated with all the appropriate federal, state, and local government agencies, including the USFWS and SHPO.

NEPA Lead Agency – U.S. Army Corps of Engineers, Sacramento District
Project Proponent – Incline Village General Improvement District

In coordination with:

Nevada State Historic Preservation Office
Reno-Sparks Indian Colony
Pyramid Lake Paiute
U.S. Fish and Wildlife Service
Washoe Tribe of Nevada and California

7 Findings

This EA evaluated the environmental effects of the proposed effluent storage facility. Potential adverse effects to the following resources were evaluated in detail: air quality, biological resources (e.g., federally listed species, vegetation, and wildlife), cultural resources,

water quality, socioeconomics and environmental justice, noise, traffic and transportation, and hazardous materials.

Based on this evaluation, the Proposed Action meets the definition of a FONSI described in 40 C.F.R. § 1508.1. A FONSI may be prepared when an action would not pose a significant effect on the human environment and for which an environmental impact statement would not be prepared. Rather, a notice of availability of the EA and FONSI will be posted on USACE website located at USACE Sacramento District.

According to Engineer Regulation 200-2-2, section 11, since the proposed action is not a feasibility, continuing authority, or special planning report, nor is it an operation and maintenance activity involving discharge of dredged or fill material, a draft EA is not required to be circulated for public comment. Rather a notice of availability of the EA and FONSI will be sent to concerned agencies, organizations, and the interested public.

8 List of Preparers

This Combined EA was prepared by Resource Concepts, Inc. in collaboration with the USACE, Sacramento District. The following individuals assisted in the creation of this report:

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