



# **Nevada Irrigation District**

Combie Phase I Canal and Bear  
River Siphon Replacement Project

*Initial Study/Mitigated Negative  
Declaration*



July 2012

Prepared for  
Nevada Irrigation District

Prepared by  
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One Team. **Infinite Solutions.**





**NEVADA IRRIGATION DISTRICT  
COMBIE PHASE 1 CANAL AND  
BEAR RIVER SIPHON  
REPLACEMENT PROJECT**

July 2012

*Prepared by:*

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**NEVADA IRRIGATION DISTRICT**

**COMBIE PHASE 1 CANAL AND BEAR RIVER SIPHON REPLACEMENT PROJECT**

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**NEVADA IRRIGATION DISTRICT  
COMBIE PHASE 1 CANAL AND BEAR RIVER SIPHON REPLACEMENT PROJECT**

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## **1.0 Introduction**

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The Nevada Irrigation District's Combie Phase 1 Canal and Bear River Siphon Replacement Project entails the installation of 9,100 linear feet of dual pipes within the existing footprint of the Combie Phase 1 Canal (Nevada County) and the addition of a 48-inch diameter aerial siphon parallel to the existing Bear River Siphon with footings on either side of the Bear River in Nevada and Placer County. Therefore, the Project is predominantly in Nevada County along the northern side of the Bear River and touches slightly into Placer County with the southern end of the Bear River Siphon and pipe connection to the Combie-Ophir Canal.

The Nevada Irrigation District (NID) sustains roughly fifty percent of its agricultural demand and some municipal demand with the Combie Phase I Canal. The canal is located in Nevada County at approximately 1,550 feet in elevation (Figures 1-1 & 1-2).

This canal is the primary conveyance mechanism for the District's water coming from Combie Reservoir and moving through the downstream conveyance infrastructure. It was built in the early 1970's and is approximately 9,100 linear feet of free-standing, reinforced shotcrete flume configured with a vertical wall at the outward edge and sloped wall cast against the cut embankment (Photos 1-1). The canal has an interior bottom width of 12-feet and an interior height of approximately 7-feet. At the end of the Combie Phase I Canal, water is diverted into (A) the Combie Phase II Canal and (B) the Bear River Siphon (Photo 1-2) for raw water in the southwestern portion of the District. Water diverted thru the Bear River siphon and Combie-Ophir systems supplies water to the District's North Auburn Treatment Plant. Water is also diverted from the Combie Phase I Canal to the Magnolia reservoir via a pump station, where water is then diverted into the Magnolia III canal which delivers water to the Lake of the Pines water treatment plant. Water can also be diverted to the Rock Creek Reservoir and into PCWA's raw water system during an emergency or during yearly scheduled canal maintenance.

Since the Combie Phase I Canal was built almost 40 years ago, it is reaching the end of its useful life. Due to its location along steep slopes and the thin-wall construction, the canal has experienced conditions of stress, reduced effectiveness, and failures over the decades. There is separation of joints that require regular and extensive repairs (Photo 1-3). Monitoring of all joints a minimum of once a month is necessary. Sections of the walls are supported by tie-backs and/or steel bracing (Photo 1-4). The canal has failed three times. The gradual decay of the infrastructure requires improvements to maintain a viable water supply operation to meet the District's current demand, which peaks at approximately 165 cubic feet per second (cfs) during the summer months.

The 34-inch penetration at the dam that supplies water to the Combie Phase 1 Canal is designed for a maximum flow of 200 cfs. Today, the canal conveys a flow of approximately 165 cfs and has a design flow of 200 cfs. (Figure 1-3) The pipeline replacement and redundant siphon would remain under gravity flow and could convey a maximum of approximately 180 cfs. This Project addresses emergency reliability issues and until the pipeline is connected to the Combie North Powerhouse the result is an effective decrease in capacity from the current 200 cfs to a reliable

180 cfs. Flows above the current designed flow rate of 200 cfs could not be achieved until the south penstock is added.

However, the dual pipes would be sized such that the District could meet the ultimate hydraulic needs of the system requiring delivery of up to 300 cfs. This flow would include raw water materplan flows of 200 cfs, regional treatment plant masterplan flow of 65 cfs, and delivery of up to 35 cfs to PCWA for emergency and scheduled canal maintenance. Any flows above 180 cfs would be available downstream if at a future date all of the following occurred: (1) a penstock were added upstream of the Project, (2) the system was sealed and could be pressure fed, and (3) additional pipeline capacity were added downstream of the Project. Such changes would result in system increases in capacity that would require additional CEQA analysis and are not a part of this Project.

**Purpose and Need:** Upgrades to the canal are necessary for water supply reliability because of the previous failures and the failure risks associated with operation are too high. As mentioned before, the canal has failed three times. Each failure sends water down the cliff into the Bear River. Currently there are several sections in the canal that are being supported by cables and/or steel bracing. Current failure risks have serious negative repercussions for the safety of District operations staff, the reliability of treated water for the Lake of the Pines and North Auburn communities, the reliability of raw water supply for agriculture in the southwestern portion of the District, and the Bear River ecology and water quality.

The Bear River Siphon replacement is necessary because 1) it is infeasible under current conditions and regulations to maintain the existing pipe crossing, and 2) a parallel pipe will facilitate maintenance by providing redundancy and reliability. The existing siphon was built in the early 1970's and requires maintenance. However, the existing pipe cannot handle wind shear potential exerted on the pipe during maintenance activities unless substantial additional work to reinforce the facility is done prior to performing the maintenance.

Therefore, the purpose of the Project is to:

1. Facilitate safe working conditions,
2. Improve water reliability by reducing the risk of failures, and
3. Protect the Bear River ecology from additional failures due to structural failures.

The proposed Project would be implemented over several construction seasons to avoid interrupting the water supply.

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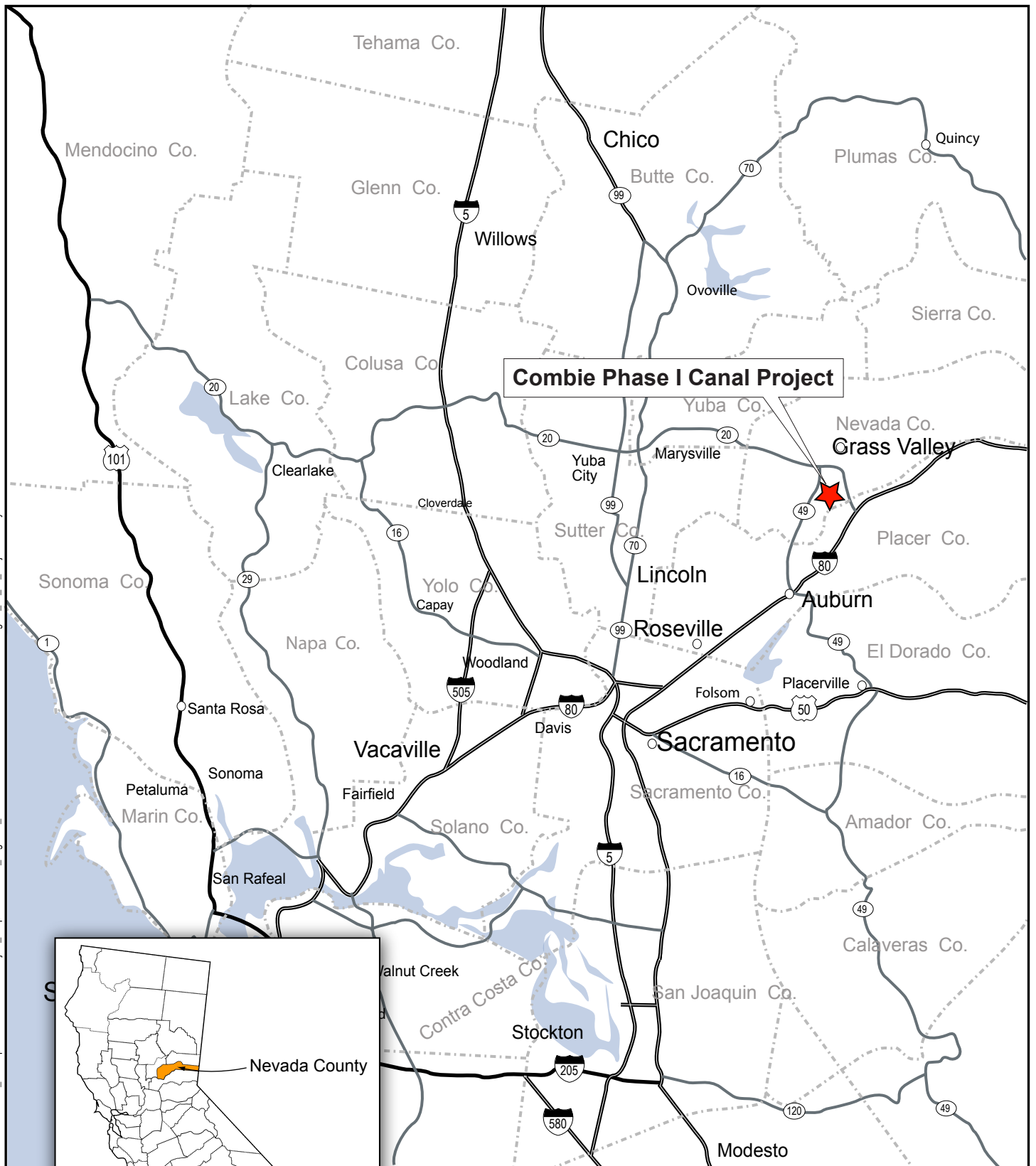


Figure 1-1  
Project Vicinity



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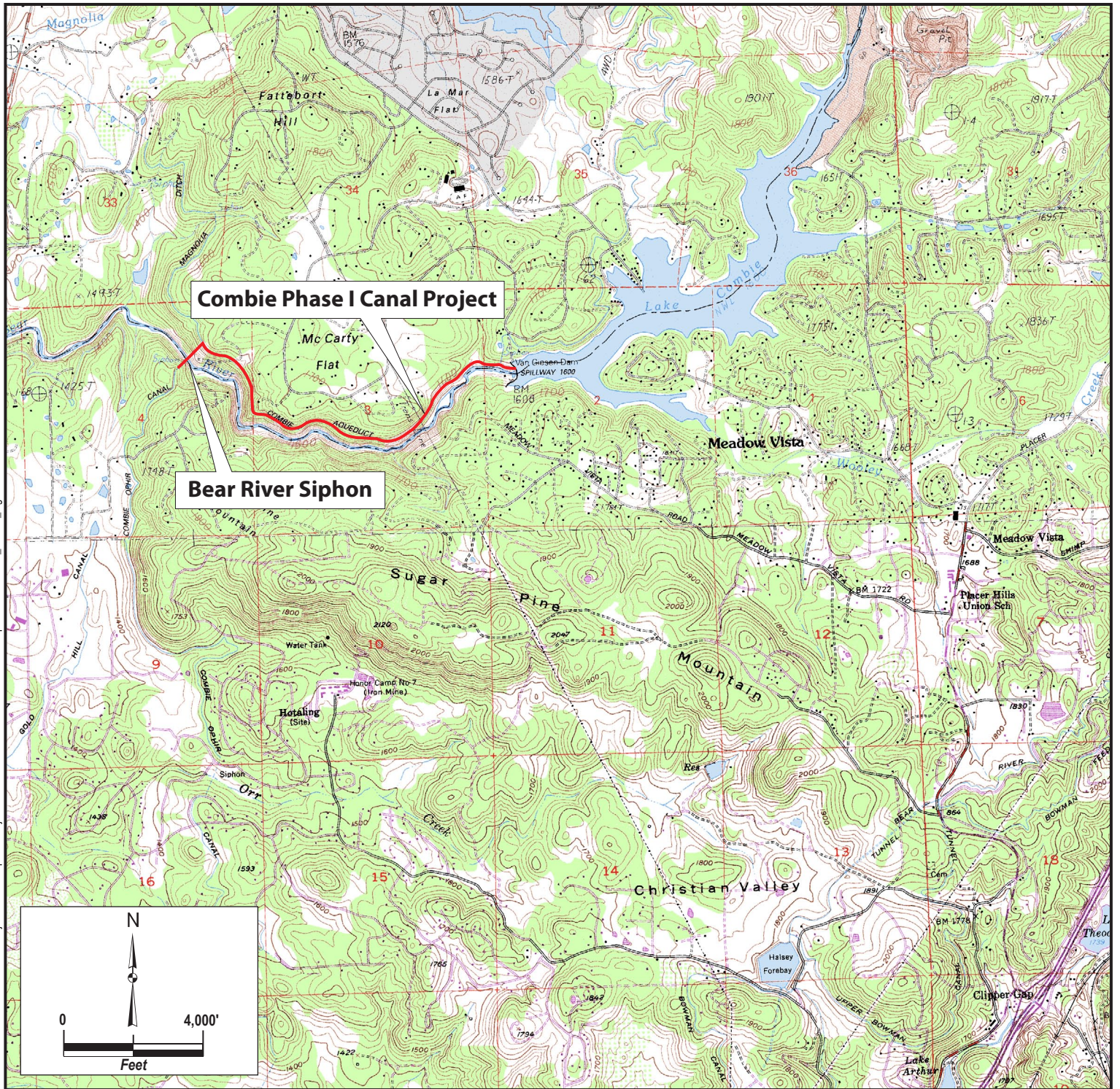


Figure 1-2  
Project Location





Photo 1-1  
**Combie Phase 1 Canal**



Photo 1-2  
**Existing Bear River Siphon**



Photo 1-3

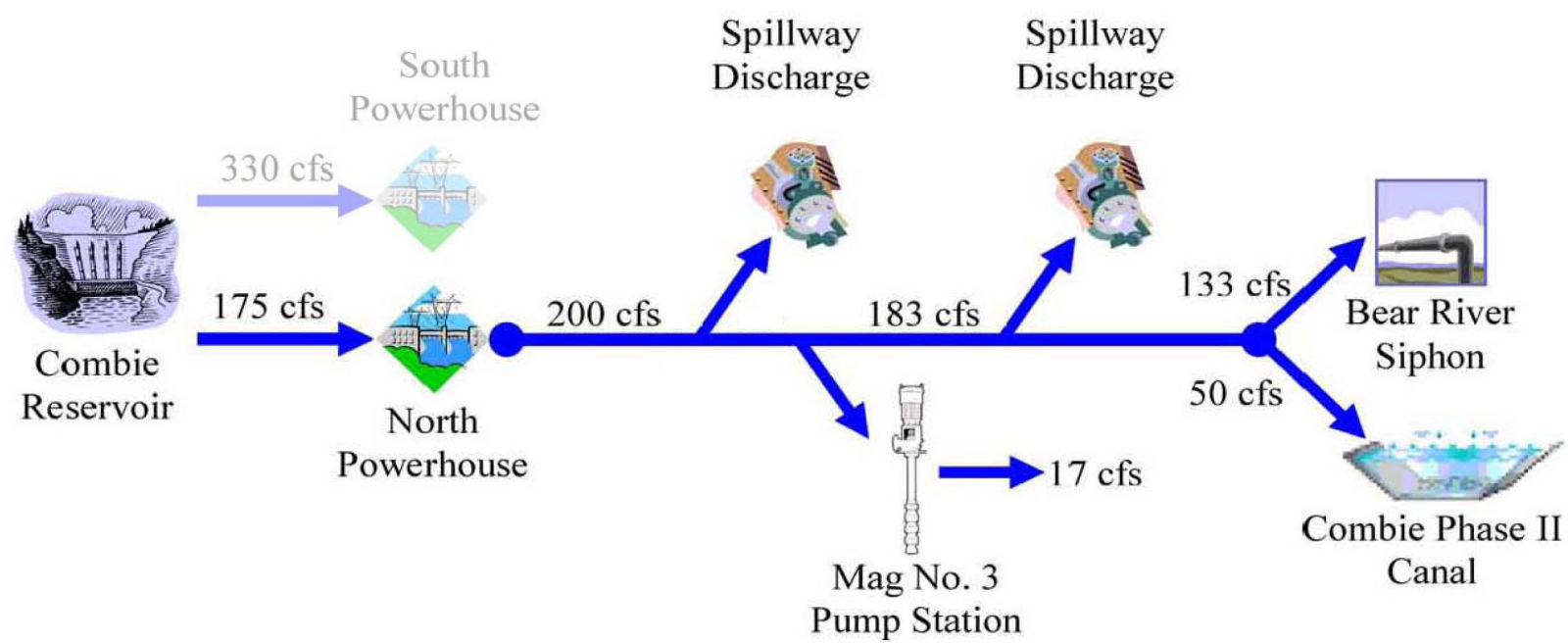
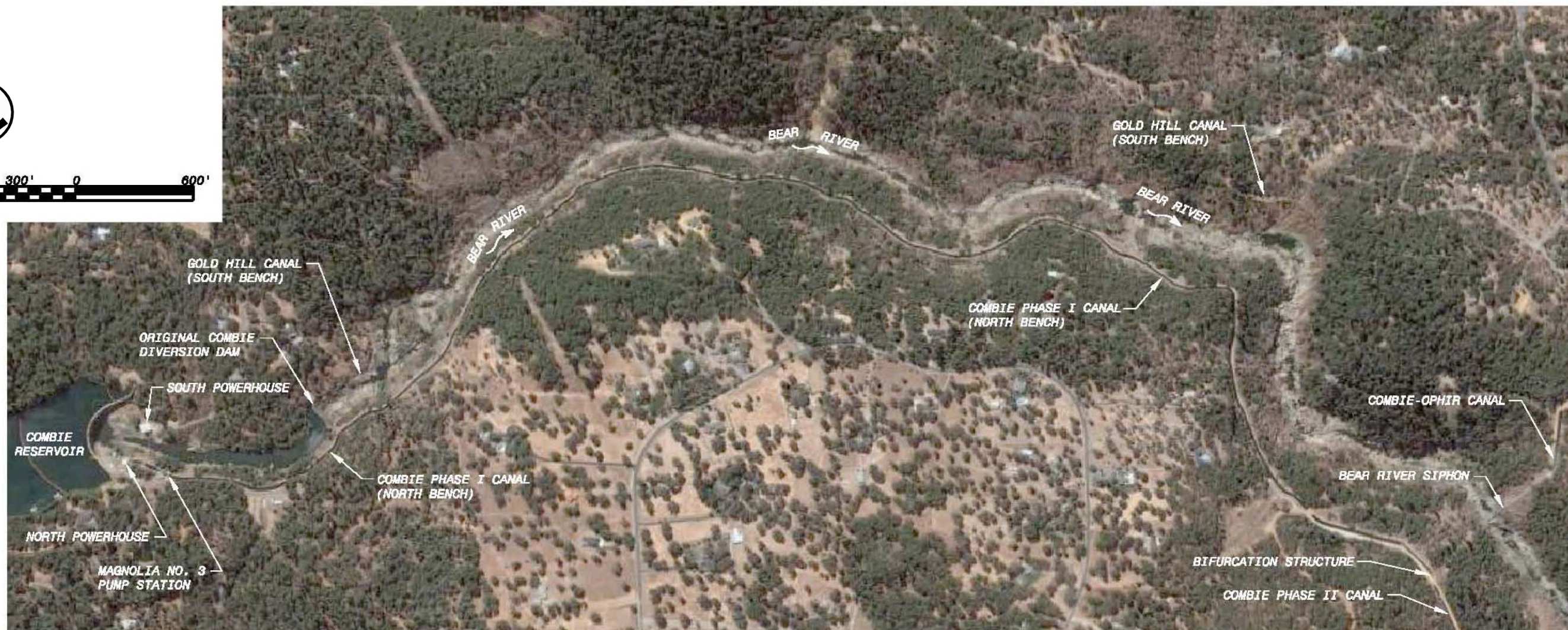
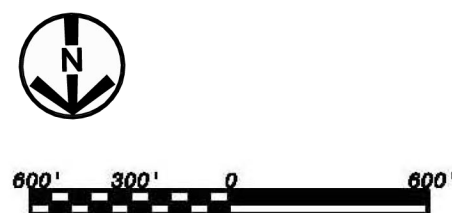
**Combie Phase 1 Canal Typical Joint Separation Leaks and Temporary Repair**



Photo 1-4

**Combie Phase 1 Canal Narrow Wall at Risk and Stabilized with Tieback Supports**





**WATER SYSTEM SCHEMATIC**

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## **1.1 CEQA PROCESS**

The California Environmental Quality Act (CEQA) is the state environmental law that requires project proponents to disclose the significant impacts to the environment from proposed development projects. The intent of CEQA is to foster good planning and to consider environmental issues during the planning process. Nevada Irrigation District (NID) is the lead agency under CEQA for the preparation of this initial study. CEQA (21067) defines the lead agency as “the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment”. The District’s Combie Phase 1 Pipeline Replacement Project is subject to the requirements of the CEQA. Nevada County Community Development and state resource agencies will be given the opportunity to review and comment on this document, during the 30-day Public review period. Comments received during the 30-day review period will be considered by the District Board prior to the certification of the CEQA disclosure document, project approval, and adoption of the Mitigation Monitoring and Reporting Program (MMRP).

The goal of this Project is to replace the NID’s existing at risk Combie Phase 1 Canal infrastructure and avoid additional failures which have serious potential negative repercussions for the safety of District operations staff, the reliability of treated water for the Lake of the Pines and North Auburn communities, the reliability of raw water supply for agriculture in the southwestern portion of the District, and the Bear River ecology and water quality. The replacement infrastructure will be placed within the existing infrastructure and the parallel siphon will be placed well above the flood plain, riparian zone, and ordinary highwater mark of the Bear River. This design was selected to avoid and minimize environmental impacts.

CEQA will therefore provide the primary form of environmental disclosure and agency review for this Project. If an agency deems it necessary, in addition to CEQA compliance, environmental permits such as California Department of Fish and Game (CDFG) Code 1600 et seq Compliance (Streambed Alteration Agreements), US Army Corps of Engineers (CORPS) Clean Water Act (CWA) Section 404 permit, and Regional Water Quality Control Board CWA Section 401 permit, will be obtained prior to any work in jurisdictional waters, the riparian zone, or the floodplain located in the Project area.

## **1.2 SCOPE OF THIS STUDY**

As the lead agency under CEQA, the NID is responsible for compliance with the environmental review process prescribed by the CEQA guidelines. This study focuses on the environmental issues identified as possibly significant in the CEQA checklist and by CEQA guidelines. A complete Project description is included in Section 2 of this document. All areas of concern relevant to the Combie Phase 1 Pipeline Replacement Project are analyzed in Section 3 and the references cited are included in Section 4. Particular areas of concern, such as water quality, sensitive plant and animal species, and cultural resources are examined in greater depth. Biological and wildlife surveys were conducted on May 29 and July 23, 2009. The biological resources survey report was completed by Robertson Bryant Inc (RBI) in October 2009. Additional reconnaissance-level surveys were conducted by Stantec biologists and anthropologist on May 8, 2010, December 22, 2010, and March 5, 2011.

## **2.0 Project Description**

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Nevada Irrigation District's Combie Phase 1 Canal and Bear River Siphon Replacement Project involves the installation of dual pipelines within the existing Combie Phase 1 Canal (Nevada County) and the addition of an aerial siphon parallel to the Bear River Siphon that would be a maximum of 48-inches in diameter (footings in Nevada and Placer Counties). Therefore, the Project area is primarily located in Nevada County (Figure 1-1) at approximately 1,550-feet in elevation, where the Combie Phase 1 Canal extends approximately 9,100 linear feet in length. The Bear River Siphon spans the border of Nevada and Placer Counties and therefore, has one footing and approximately 200 feet of connection piping (to Combie Ophir) located in Placer County. The Combie Phase 1 Canal and Bear River Siphon are the primary water conveyance mechanism from Combie Reservoir to NID's downstream conveyance infrastructure for agriculture in southern Nevada and western Placer Counties. It also supplies some treated water in Lake of the Pines and North Auburn communities. The existing system, which is at risk of continued failures, is described below.

### **2.1 EXISTING INFRASTRUCTURE**

#### **2.1.1 Existing Combie Phase I Canal**

The canal was built in the early 1970's and the growing reliance on this system and the gradual decay of the infrastructure require replacement and improvements to maintain a viable water supply operation for both treated and raw water service.

The Combie Phase 1 Canal was constructed for conveying raw water from the Combie Reservoir to points of discharge roughly two miles downstream. The canal is approximately 9,100 linear feet of free-standing, reinforced shotcrete flume configured with a vertical wall at the outward edge and sloped wall cast against the cut embankment along the inside edge (Photos 2-1, 2-2 and 2-3).

The canal has an interior bottom width of 12 feet and an interior height of 6.5 feet to 7 feet. The canal features 5 feet of vertical drop over its reach with a constant slope of 0.0005 ft/ft. The canal was constructed on a bench cut into the canyon slope on the north side of the Bear River. The bench supporting the canal is roughly 20 feet in width leaving 6 feet to 8 feet adjacent to the river side of the canal for access. Access alongside the canal is limited to narrow off-highway vehicle and foot traffic. Since the canal was constructed, the outside wall has rotated outward in localized areas. This rotation is presumably a result of reinforcing steel exposure and structural failure of the invert caused by undermining and leakage at construction and expansion joints. Tie-back rods have been installed where wall rotation has been severe. In addition, certain locations have increased subgrade erosion and loss of stability. This occurs in the areas where fill material was placed.

Several appurtenant structures exist within the canal reach. The canal includes access ramps at the upstream and downstream ends, a box culvert crossing, a Parshall flume for flow measurement, and a spillway structure to maximize energy production at the North Powerhouse when available run-of-the-river flows exist. A downstream terminus structure bifurcates flows

into the Bear River Siphon (Photo 2-4) and the Combie Phase II Canal (B&V Report, 2008). Access to the Bear River Siphon is via a slightly overgrown dirt road on the north side and down the pipeline itself on the south side of the river.



Photo 2-1  
**Combie Phase 1 Canal**



Photo 2-2  
**Combie Phase 1 Canal Narrow Concrete Wall**



Photo 2-3

**Combie Phase 1 Canal with Tie-backs for Stabilization**



Photo 2-4

**Existing Bear River Siphon (B&V)**

### **2.1.2 Existing Bear River Siphon**

At the west end of the Combie Phase I Canal, there is a bifurcation point where flow is split between the Combie Phase II open channel and the Bear River Siphon, a closed conduit aerial crossing that leads to the open channel Combie Ophir Canal. The existing inverted siphon consists of: roughly 350 feet of buried 42-inch Techite (fiberglass reinforced mortar) pipe on the downward leg (north side of river); roughly 250 feet of suspended 30-inch welded steel pipe for the aerial



crossing; and roughly 250 feet of saddle supported 36-inch pipe on the upward leg (south side of river). In total the Bear River Siphon is 850 feet long.

The existing Bear River Siphon is designed to convey up to 150 cfs to the Combie-Ophir system, which originates on the south side of the Bear River. A 44 foot elevation difference between the inlet to the siphon (north side) and the outlet (south side) exists, the inlet being higher than the outlet. The vertical profile features a maximum elevation difference (from the inlet to the lowest pipeline elevation as it crosses the river) of 161 feet. The inlet to the siphon includes a manually operated slide gate to regulate flow diverted into the Combie-Ophir system. The portion of piping crossing the Bear River is suspended using a trestle-and-cable support system. Single towers exist at opposing sides of the river for anchorage and support of the suspension cables. The cables in turn are tethered to the pipeline for vertical and lateral support of the aerial piping. The metal piping is reported to be due for relining and recoating. Prospective painting contractors contacted by the District were not interested in performing the work because of access and safety issues. Based on the seismic and wind analysis performed in January 2007, additional work to repair/replace/strengthen the siphon would be necessary before any recoating of the siphon could occur.

## **2.2 PROPOSED PROJECT**

The District contracted with Black and Veatch to perform an alternatives analysis for the Combie Phase I and Bear River Siphon, looking at 13 different alternatives, including tunneling, pipe along the south side of the Bear River (along existing bench of an abandoned canal) and various replacement/repair options to the existing canal. From that analysis, it was determined that the best alternative was to install dual pipes within the existing canal flume and to replace the siphon, which was outlined in the Alternatives Evaluation Report (B&V Report, 2008) as Alternative 2B (Figure 2-1). Note: This design may be slightly altered to include higher density fill within the pipe and thereby avoid the need for the controlled density fill slope along the southern edge of the existing canal walls.

### **2.2.1 Combie Canal Pipeline Replacement**

The District's Combie Phase 1 Canal replacement Project involves the installation of dual pipelines within the existing Combie Phase 1 Canal. Construction of the proposed Project will utilize the existing canal as a pseudo-trench section and could be implemented without taking the canal out of service (Figure 2-2). The canal currently conveys a maximum design flow of 200 cfs. The pipeline replacement would allow the District to meet the ultimate hydraulic needs of the system up to 300 cfs to various points of discharge downstream; however, as currently designed (gravity fed and with no additional penstock connection to the north or south side of Combie Dam) only 180 cfs would flow through the system. The 300 cfs has no change in the existing canal footprint. The pipe sizing is designed to minimize loss of power production for the Combie North Powerhouse by reducing the headloss for the higher flows, which include the regional treatment plant masterplan flows. While adding the 35 cfs for PCWA would affect power generation at Combie North, it is recommended that the duel piping sizing remain the same, due to the limited nature of the flows to PCWA (worst case would be an emergency during peak summer flows).

**NEVADA IRRIGATION DISTRICT****COMBIE PHASE 1 CANAL AND BEAR RIVER SIPHON REPLACEMENT PROJECT**

Project Description

July 2012

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There have been several failures of the Combie Phase 1 Canal over the years and it is considered to be in generally poor condition. The preferred alternative, Alternative 2B as described in the Alternatives Evaluation Report (B&V Report, July 2008), would consist of two parallel pipelines on the north bench. To work with the hydraulic gradient of the existing north bench and preserve current hydropower conditions at the North Powerhouse, parallel pipelines are required.

The proposed dual pipelines would mimic the meandering route of the existing north bench and its vertical profile. Installation would occur in segments using a temporary bypass located immediately adjacent to the existing canal along the existing bench to continue water deliveries during construction (Photo 2-5).

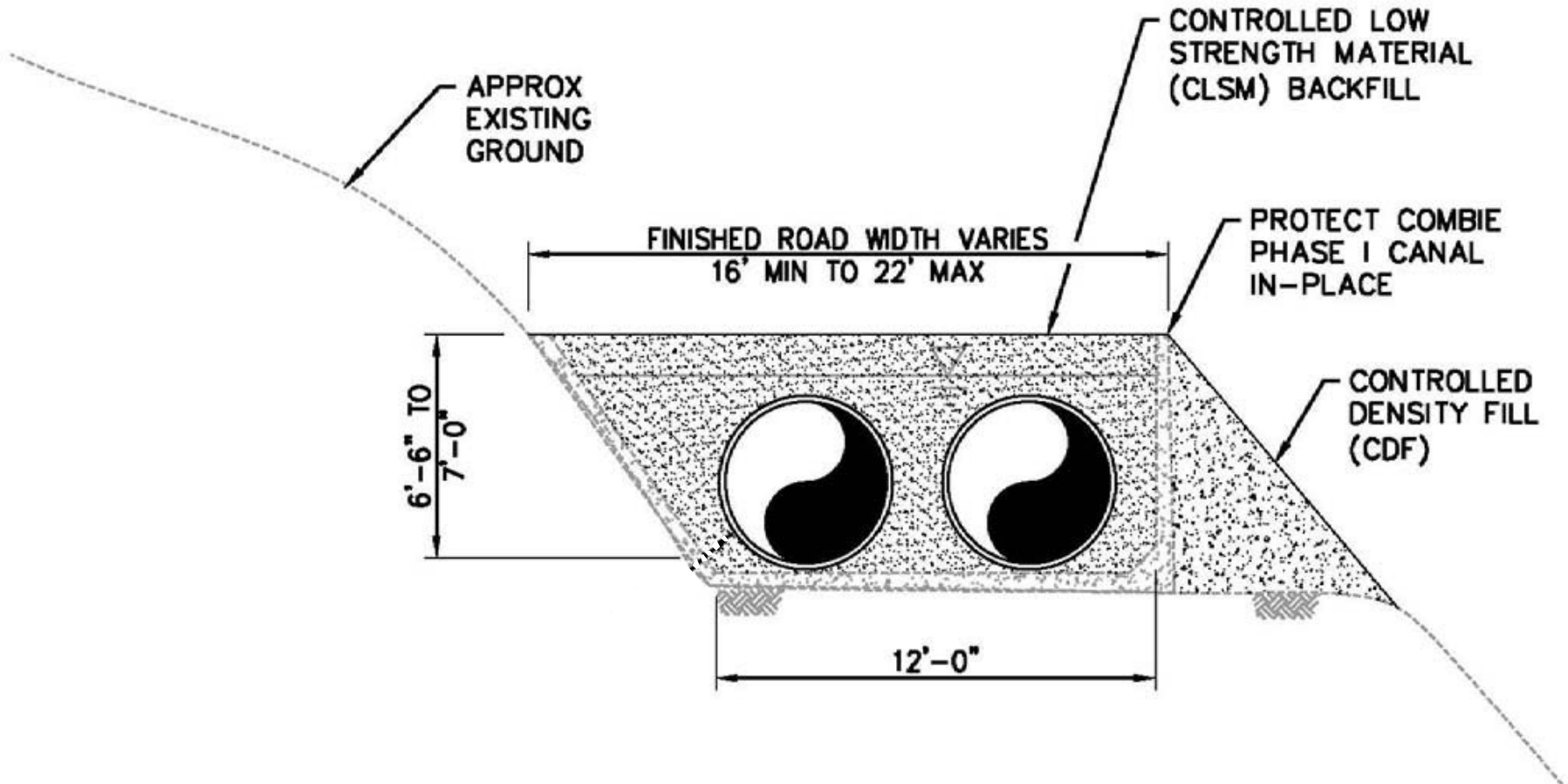


Photo 2-5

**Example of Bypass System during Canal Construction**

Once the pipes are installed, NID would utilize the pipe alignment as an access route. Access roadway improvements would be included.

Currently the canal is considered a transmission facility and does not allow for individual service connections. As part of the construction phase, the District will be installing one or more service manifolds at specific locations that would allow for property owners in the area to obtain a raw water service from the new pipeline. Any easements across private properties necessary for property owners to get water from the service manifold(s) to their property would be the responsibility of the property owners. The District would be responsible for installing a service connection at the manifold for property owners to connect to.

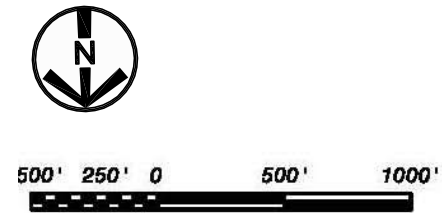
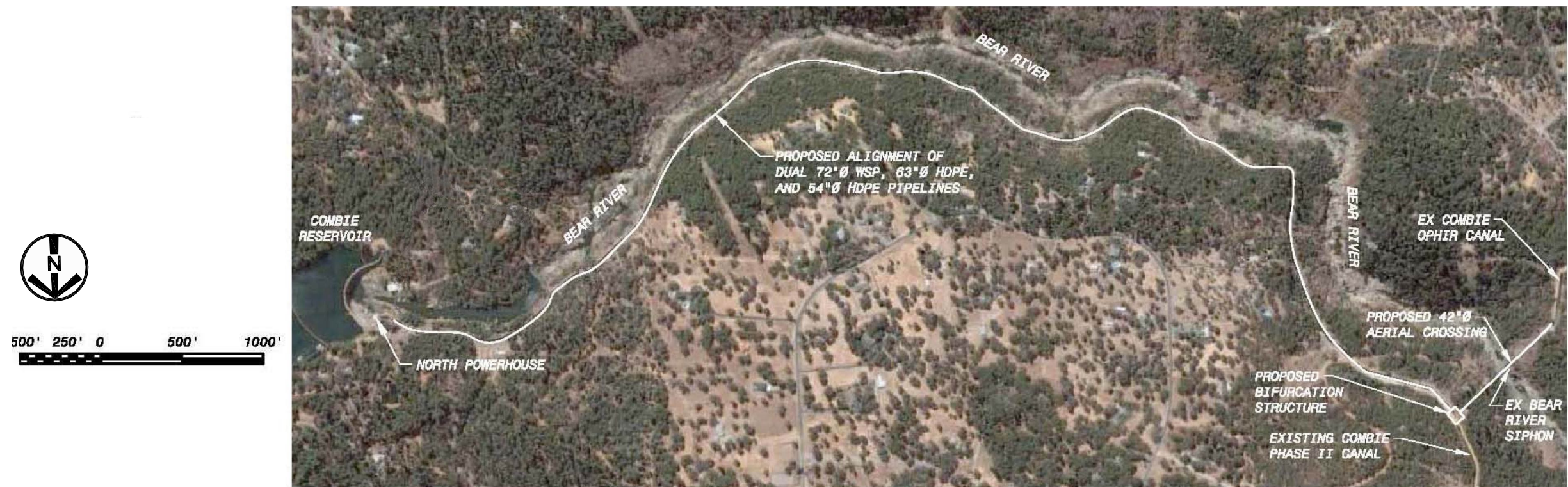


**TYPICAL SECTION**

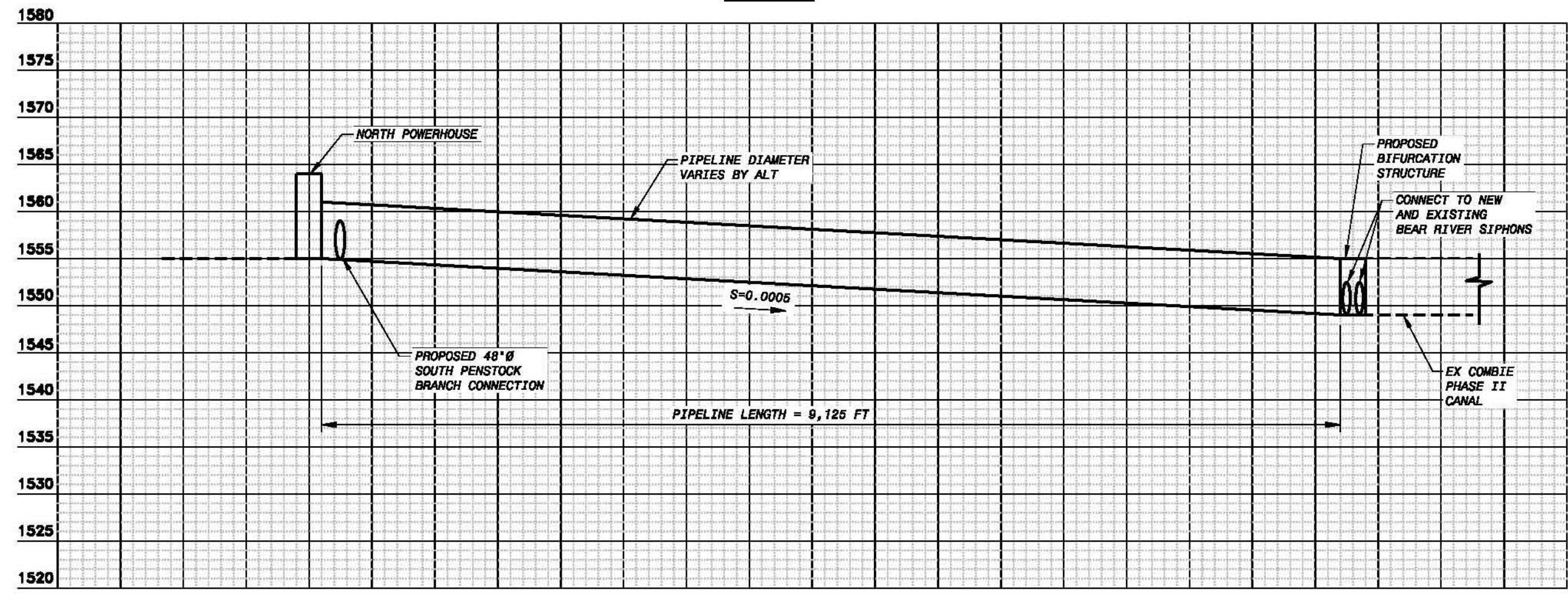
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**PLAN**



**PROFILE**

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### **2.2.2 Bear River Siphon Aerial Crossing**

At the downstream heading, the pipelines would be connected to the existing bifurcation structure. A new aerial siphon would be required to convey flow from the north side of the Bear River to the Combie-Ophir discharge structure. The minimum sizing of the aerial crossing would be 48-inch diameter, to handle raw water masterplan flow and the regional treatment plant masterplan flows. The District would install a 48-inch diameter aerial siphon if consideration was made for supplying up to 35 cfs to PCWA for emergency flows and scheduled canal maintenance. NID had indicated that this structure will be very similar in size, height, form, span distance, materials, color, and general alignment to the existing aerial pipe support structure. The existing Bear River Siphon would be preserved in-place for redundancy purposes (B&V Report, 2008).

The access to the siphon would be primarily on the north side where there is a road leading to a bench where construction would occur using a crane, tractor, and excavator. Access on the south side would likely occur parallel to the existing pipe. The siphon installation is approximately 75 feet above the Ordinary High Water Mark (OHWM) and would not require access or use of the river bed.

### **2.2.3 Construction Activities and Estimated Schedule**

All construction activities for the proposed Project are listed below in Table 2-1. The Project involves the replacement of existing infrastructure. These upgrades will occur on and within the existing Combie Phase 1 Canal. Due to limited flows in the temporary bypass pipe, construction would be performed during non-irrigation season (October thru April); however, to minimize the potential for sediment or erosion impacts, the bypasses would be installed during the dry season. The Project would be implemented over several construction seasons to avoid interrupting the water supply. This alternative maintains the infrastructure within existing easements and meets the primary goals of the proposed Project. All proposed construction activities will occur in phases. The following construction activities outlined in Table 2-1 below are the subject of this initial study and environmental analysis.

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Table 2-1  
**Project Overview and Proposed Schedule**

Improvement	Specific Improvement	Principal Construction Activities	Location	Area of impact	Estimated Date of Construction
<b>Access Roads, Temporary Staging Areas, and Temporary Bypass Pipeline Installation</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Upgrades to existing access roads and staging of equipment in designated staging areas (disturbed areas)</li> <li><input type="checkbox"/> Installation of temporary bypass pipe</li> </ul>	<ul style="list-style-type: none"> <li>- Tree trimming</li> <li>- Grading</li> <li>- Vehicular traffic</li> <li>- Staging</li> </ul>	East and west end of the Combie I canal and along the edge of the canal	Approximately 3 acres	The proposed Project activities will be completed over multiple construction seasons. These construction seasons will occur during low flow periods (October-April).
<b>Combie Phase 1 Pipeline Replacement</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Develop Staging Areas</li> <li><input type="checkbox"/> Install Dual Pipelines</li> <li><input type="checkbox"/> Fusion Welded with Mechanical Joints As Needed 18,250 LF</li> <li><input type="checkbox"/> Import and Place Backfill for Pipelines 20,000 CY</li> <li><input type="checkbox"/> Import and Place CDF Backfill Outside Canal Wall as necessary</li> </ul>	<ul style="list-style-type: none"> <li>- Tree trimming</li> <li>- Grading</li> <li>- Trenching</li> <li>- Excavation</li> <li>- Fill</li> </ul>	Existing NID Combie Phase 1 Canal with a 12-foot Project buffer and 2 acres total for staging areas at each end of the Project.	Pipe within the existing canal, approximately 9,100-feet long.  Construction corridor width depends on location and need for staging along the pipeline (ranges from 10 feet to approximately 30 feet).	The proposed Project activities will be completed over multiple construction seasons. These construction seasons will occur during low flow periods (October-April).

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Improvement	Specific Improvement	Principal Construction Activities	Location	Area of impact	Estimated Date of Construction
<p><b>48" Aerial Pipeline Crossing</b></p>	<ul style="list-style-type: none"> <li>❑ Construct 48" Siphon Replacement/Aerial Crossing</li> <li>❑ Epoxy Lined/Coated WSP, ~250-foot Aerial Span 900 LF</li> <li>❑ Trestle-and-Cable Suspension Bridge w/ Catwalks</li> </ul>	<ul style="list-style-type: none"> <li>- Footing excavation and development</li> <li>- Hauling</li> <li>- Welding</li> <li>- Suspension</li> </ul>	<p>Adjacent to the existing Bear River Siphon. Approximately 100-feet above the ordinary high water mark, riparian zone, and floodplain.</p>	<p>Aerial pipe = 48" diameter and 850-ft length.</p>	<p>The proposed Project activities will be completed over multiple construction seasons. These construction seasons will occur during low flow periods (October-April).</p>



## **2.2.4 Project Site Access and Staging Areas**

Access to this Project site is challenging and work space will be limited. Access to the Project site and staging areas will include the use of Combie Road (county road) via Table Meadow Road (private paved road). Puma Trail Road will be used for the west end of the Project and the road is a single lane dirt road for a distance of approximately 0.4 mile currently used by NID for access. The east end of the Project can be accessed from Ramada Way and Table Meadow Road (private paved roads), a distance of approximately 0.8 mile. Where the paved county road ends, an existing gravel road currently used by the District for access will be improved with the addition of an aggregate base. After the pipeline installation, the backfilled pipe section and finished surface would act as a permanent access road. The current access road to the cross river siphon will be cleared and graded to facilitate safe access to the pipe crossing.

The District's contractor will need staging areas for temporary facilities, for short term spoil storage, construction equipment storage, and material storage. The District proposes two staging areas at the Project site (one on each end of the existing Combie Phase 1 Canal). While the staging area space is limited, ideal conditions would allow graded and surfaced staging areas to be approximately two acres in area. Temporary private property easements may be required in order to ensure appropriate staging locations for the proposed Project.

## **2.2.5 Operation**

The Combie-Bear River System has been in use for nearly one hundred years and plays a vital role in supplying raw water to suit roughly half of the District's total annual irrigation demands. The existing canal has been in service since the early 1970's. Altering points of connection and diversion approaches require changes to existing operations. To the extent possible, flow through the North Powerhouse turbine would continue to be the priority so long as water delivery is not restricted. The current procedure of adjusting a control gate at the Bear River Siphon would continue to be the general operating practice. The Project would also require adjusting a valve to properly divide flow between the Combie Phase II and Combie-Ophir systems. The current design capacity of the canal is 200 cfs. The design capacity of the Bear River Siphon is 150 cfs. The proposed Project (without connecting to existing north penstock or the addition of a south dam penstock) would result in potential operational flows of 180 cfs. The operation activities discussed above will be in place once construction is complete.

## **2.3 ENVIRONMENTAL COMMITMENTS/BEST MANAGEMENT PRACTICES**

The following environmental commitments and Best Management Practices have been incorporated by the District into the Project design and will be executed prior to, and during the proposed Combie Phase 1 Pipeline Replacement Project.

**Environmental Commitment AIR-01 – Construction Air Quality BMPs:** Construction equipment exhaust emissions shall not exceed Northern Sierra Air Quality Management District Rule 202 Visible Emission limitations.

No open burning of removed vegetation is to occur. Vegetative material should be chipped and disposed of properly.

Construction shall comply with the best management practices set out in the Northern Sierra Air Quality Management District's Rule 226 Dust Control. All grading operations will be suspended if fugitive dust exceeds Rule 226 Dust Control limitations. This consists of "visible dust of such opacity as to obscure an observer's view to a degree equal to or greater than an opacity of 20%, for a period or periods aggregating more than three (3) minutes in any one (1) hour."

**Environmental Commitment BIO-01 - Biological resource-related commitments:** are as follows:

**Special-Status Plants:** 1) Route construction activity away from sensitive plants to the degree feasible in keeping with Project objectives. 2) Relocate plants to suitable habitat outside of the Project area, whether within applicant-owned land or off-site. 3) Monitor affected populations or relocated populations to document potential Project-related impacts. 4) Restore or enhance occupied habitat on-site or at another location; and/or 5) Protect occupied habitat for the species on-site or at another regional location.

**Trees:** Tree removal will be minimized and, and where feasible, avoided.

**Location:** To the extent feasible, construction activities associated with the Project will be contained to the existing pipeline right-of-way along Bear River. In sensitive habitats, where feasible, small equipment will be utilized.

**Laydown Sites:** To the extent feasible, proposed lay down sites will be located in disturbed or graded areas.

**Waters of the US and Riparian Habitat:** If required, Clean Water Act Section 404 permits will be obtained for the pipeline replacement activities located in waters of the US. A California Fish and Game Code 1602 Streambed Alteration Agreement will be obtained prior to any work within waters of the US, associated ephemeral drainages, and the riparian zone. Best Management Practices will be employed during construction to minimize dust, erosion, and potential sediment loading into the river.

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**Environmental Commitment GEO-01 - Erosion Control and Stormwater Pollution Prevention**

**Plan:** NID and the construction contractor will prepare an erosion control plan and a stormwater pollution prevention plan (SWPPP) prior to construction. The plans shall provide, at a minimum, measures to trap sediment, stabilize excavated soil piles, and stabilize and revegetate disturbed areas. The plan shall be implemented and inspected accordingly in compliance with the permit throughout the construction process.

The bypass structures will either be installed during the dry season between April and October to minimize the potential for erosion or installed with SWPPP approved erosion control structures in place.

**Environmental Commitment WAT-01 - Spill Containment:** To reduce potential contamination by spills, no refueling, storage, servicing, or maintenance of equipment will be performed within 50 feet of sensitive environmental resources. No refueling or servicing will be done without absorbent material or drip pans underneath to contain spilled fuel. Any fluids drained from the machinery during servicing will be collected in leak-proof containers and taken to an appropriate disposal or recycling facility. If such activities result in spillage or accumulation of a product on the soil, the contaminated soil will be assessed and disposed of properly. Under no circumstances will contaminated soils be added to a spoils pile.

All maintenance materials (i.e., oils, grease, lubricants, antifreeze, and similar materials) will be stored at off-site staging areas. If these materials are required during field operations, they will be placed in a designated area away from site activities and sensitive resources.

**Environmental Commitment Noise-01- Noise Control:** Noise generating work will be limited to daylight hours.

**Environmental Commitment TRAF-01-Traffic Control:** As necessary, the District will require the contractor(s) to prepare a Traffic Control Plan in accordance with Caltrans and/or Nevada County requirements and professional engineering standards prior to construction. The Traffic Control Plan could include the following requirements:

Emergency services access to local land uses shall be maintained at all times for the duration of construction activities. Local emergency service providers shall be informed of proposed construction activities and identified haul routes.

Access for local land uses including residential driveways, commercial properties, and agricultural lands during construction activities shall be maintained.

Roadside safety protocols shall be complied with, so as to reduce the risk of accidents.

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**2.4 AGENCY APPROVALS**

The proposed Project must be assessed for the following approvals:

**California Department of Fish (CDFG) and Game CEQA Review and Section 1602 Stream and Lakebed Alteration Agreement (SAA):** A stream or lake bed alteration agreement, in compliance with Section 1602 of the CDFG, is required when a project will substantially divert, obstruct, or change the natural flow of a river, stream or lake; substantially change the bed, channel, or bank of a river, stream, or lake; or use. This would apply to work within the Bear River or associate riparian vegetation. Section 1602 also applies to tunneling under waterways, as there is a potential for frac-out. The Project is designed to avoid work in the Bear River and its riparian habitat and therefore, a SAA would not likely be required. CDFG is a responsible agency under the CEQA and the Project would be reviewed for CEQA compliance.

**Clean Water Act, Section 401 (Central Valley Regional Water Quality Control Board (RWQCB) and US Army Corps of Engineers (USACOE)):** CWA Section 401 compliance is required for any project requiring a federal action (i.e. Corps permit or federal funding) with construction that could have an impact to surface water quality. Because the proposed Project is parallel to the Bear River, even if well out of the ordinary high water mark and riparian zone, it will require a CWA 401 Water Quality Certification. In addition, the RWQCB is a responsible agency under CEQA and will review the CEQA document.

**Clean Water Act, Section 404 (US Army Corps of Engineers):** CWA Section 404 compliance is required for direct trenching through Bear River, but can be avoided if aerial crossings are used. Known waters of the U.S. in the Project area include the Combie Reservoir, Bear River, and all Bear River tributaries. Wetlands associated with these waters would also be considered waters of the U.S. A formal wetland delineation report will be necessary to identify potential waters of the U.S., including wetlands in the Project area. The Combie Phase 1 Canal may potentially be considered a waters of the U.S. if the USACOE determines that it acts as a tributary to other waters of the U.S. A jurisdictional determination and CWA Section 404 permit from the USACOE should be requested prior to placing fill into the canal. If the canal is considered jurisdictional under Section 404, and/or work will occur within the Bear River or a tributary, then it is likely that at least one of the USACOE Nationwide Permits could authorize the activity.

**Federal Endangered Species Act, U.S Fish and Wildlife Service (USFWS):** Based on initial surveys in the Project area, no federally listed species occur in the proposed Project area or in the Bear River; therefore, consultation with USFWS is not anticipated. However, if the Project could potentially affect a species listed under the Endangered Species Act, the lead federal agency (CORPS in this case) would need to consult with the USFWS under Section 7 of the Federal Endangered Species Act (ESA) or, if no federal nexus, the District would need to consult under Section 10 of the ESA.

**Section 106, National Historic Preservation Act, U.S. Army Corps of Engineers (COE) and State Historic Preservation Office:** Section 106 of the National Historic Preservation

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Act (NHPA) requires federal agencies, or those they fund or permit, to consider the effects of their actions on properties that may be eligible for listing or are eligible for listing on the National Register of Historic Places (NRHP). If the Project requires a CORPS permit, the area of potential effect for the Project must be evaluated for cultural resources that may be eligible for listing in the NRHP. The CORPS would consult with the State Historic Preservation Office under Section 106 of the NHPA if the Project would affect any eligible cultural resources.

### **3.0 Environmental Checklist Form and Analysis**

---

**1. Project title:**

Nevada Irrigation District Combie Phase 1 Canal and Bear River Siphon Replacement Project

**2. Lead agency name and address:**

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

**3. Contact person and phone number:**

Contact: Doug Roderick  
Phone: (530) 271-6866

**4. Project location:**

Nevada Irrigation District (NID) Combie Phases 1 Canal  
Combie Canal runs parallel to and adjacent to the Bear River cut into a south facing slope  
Auburn, CA 95602

**5. Project sponsor's name and address:**

Nevada Irrigation District  
1036 W. Main Street  
Grass Valley, CA 95945  
Phone: (530) 271-6866

**6/7. General plan designation and zoning:**

Nevada County: Rural (RUR) and Public (PUB) land  
Placer County: Rural Residential

**8. Description of Project:**

See Section 2.

**9. Surrounding land uses and setting:**

The Nevada Irrigation District Combie Canal is located in a rural setting in the Sierra Nevada foothills, south of the community of Lake of the Pines. Land use within and adjacent to the Project site is designated as Rural (RUR), Public (PUB), and Rural Residential land. Land use adjacent to the Project site is generally rural and public.

**10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement).**

Refer to Section 2.6 above.

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ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

- Aesthetics
- Biological Resources
- Greenhouse Gas Emissions
- Land Use/Planning
- Population/Housing
- Transportation/Traffic
- Agriculture Resources
- Cultural Resources
- Hazards & Hazardous Materials
- Mineral Resources
- Public Services
- Utilities/Service Systems
- Air Quality
- Geology/Soils
- Hydrology/Water Quality
- Noise
- Recreation
- Mandatory Findings of Significance

DETERMINATION: (TO BE COMPLETED BY THE LEAD AGENCY.)

On the basis of this initial evaluation:

- I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed Project MAY have a significant effect on the environment, and an environmental impact report is required.
- I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Ron Nelson  
 Signature  
RON NELSON  
 Printed Name

6-28-12  
 Date  
Nevada Irrigation District  
 For



**ENVIRONMENTAL IMPACTS**

The following sections summarize (1) the environmental setting, (2) impacts, and (3) proposed mitigation measures associated with the Project. Additional topics such as the methodology and/or regulatory setting were also included where applicable. In all cases the proposed Project activities described in the Project description were analyzed for potential impacts. In each section all Project activities are referred to either explicitly by name, or implicitly as “the Project”.

**3.1 AESTHETICS**

**3.1.1 Environmental Setting**

Located in a rural area of Nevada and Placer County, the NID Combie Canal is situated on a previously developed site characterized by gravel, paved, and dirt access roads. The Combie Canal runs parallel to and adjacent to the Bear River cut into a south facing slope (Photo 3-1). The Bear River Siphon crosses the Bear River approximately 80 feet above the river in a relatively isolated area (Photo 3-1). Tall trees growing in the Bear River riparian corridor shield views of the Canal from most nearby residences. The existing Bear River design profile is depicted in Figure 3-1.



Photo 3-1

**Combie Canal - Inside of which the Pipelines would be Installed**



Photo 3-2  
Bear River Siphon - Limited number of neighbors and limited views of the crossing

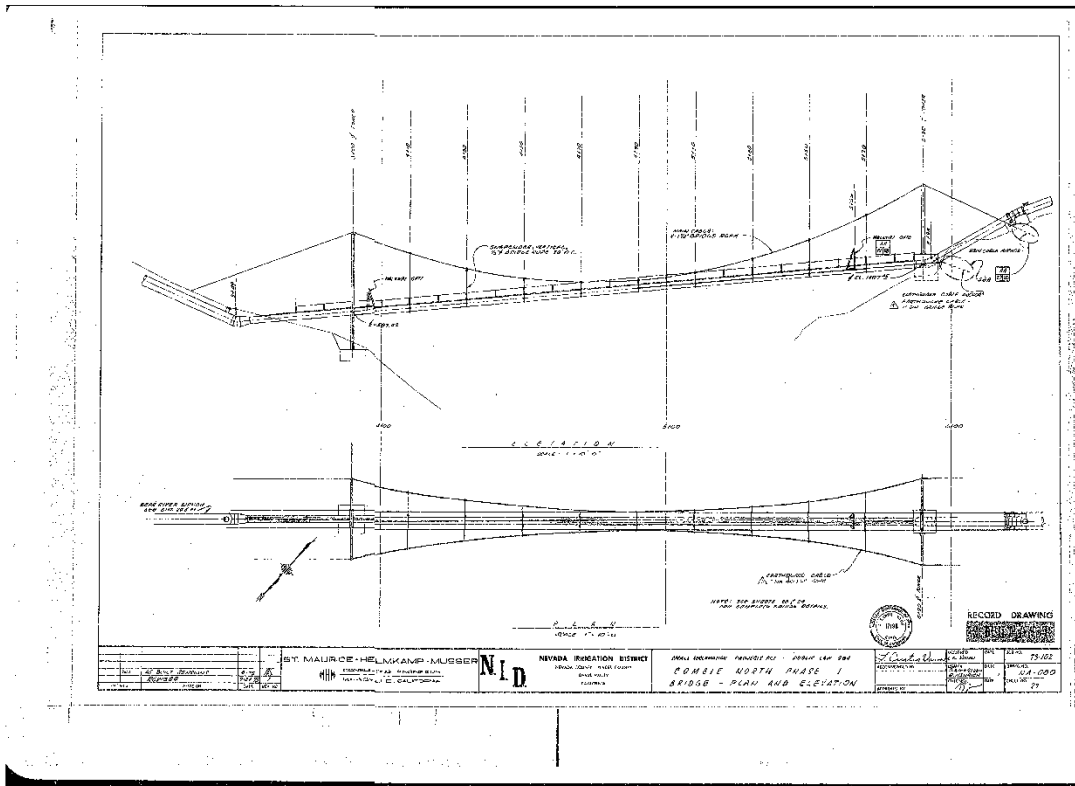


Figure 3-1  
Existing Bear River Siphon Design



Photo 3-3  
Existing Bear River Siphon

### 3.1.2 Regulatory Setting

#### Nevada County General Plan

The following goals and policies regarding scenic resources are set forth in the Conservation Element of the countywide General Plan:

- **Objective 2.14** Encourage protection and enhancement of the natural scenic beauty of this County in support of the tourist trade.
- **Objective 15.2** Promote and provide for the continued diversity and sustainability of the forest resources including timber, watersheds, wildlife habitat, aesthetics and recreation (Chapter 15 Forest, Volume 1, Nevada County General Plan, 1995).
- **Goal 18.1** Promote and provide for aesthetic design in new development which reflects existing character.
- **Objective 18.1** Develop appropriate community design guidelines to ensure aesthetic design in new development.



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- **Policy 18.1** The County shall prepare Community Design Guidelines applicable to the various General Plan Designations and zoning classifications, and adopt such guidelines as part of Comprehensive Site Development Standards, to be used in the project site review of all discretionary and ministerial project permits. The guidelines may include, but not be limited to the following:
  - Community identity
  - Preservation of natural landforms
  - Protection and management of viewsheds
  - Protection and management of river corridors and other significant streams
- **Policy 18.2** The County may adopt Specific Design Guidelines for areas within *Community Regions, Rural Places, and Rural Centers* to provide for the maintenance of community identity, scenic resources and historic sites and areas.
- **Goal 18.2** Protect and preserve important scenic resources.
- **Objective 18.2** Develop standards to protect scenic resources and viewsheds.
- **Policy 18.3** The County shall establish standards for the protection of large-scale views and viewsheds and shall incorporate such standards in the Comprehensive Site Development Standards. The standards shall provide an inventory of sensitive views and viewsheds within Nevada County, and specify protective measures and impact controls applicable through the project site review process.
- **Policy 18.6** Discretionary development in *Rural Regions* and in *Community Regions* near the Community Boundary shall, wherever possible, preserve natural landmarks and avoid ridge-line placement of structures.
- **Policy 18.7** Encourage protection of scenic corridors wherever feasible.
- **Policy 18.7A** The County shall promote a compact development pattern to protect open space buffers between communities and to maintain a geographic distinction between communities.

**Placer County General Plan**

**Goal 1.0:** To promote and enhance the quality and aesthetics of development in Placer County.

- **Policy 1.0.1.** The County shall require all new development to be designed in compliance with applicable provisions of the Placer County Design Guidelines Manual.
- **Policy 1.0.3.** The County shall require that all new development be designed to be compatible with the scale and character of the area. Structures, especially those outside of village, urban, and commercial centers, should be designed and located so that:
  - a. They do not silhouette against the sky above ridgelines or hilltops;
  - b. They fit the natural terrain; and

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c. They utilize building materials, colors, and textures that blend with the natural landscape (e.g., avoid high contrasts).

- **Policy 1.O.4.** The County shall require that new rural and suburban development be designed to preserve and maintain the rural character and quality of the County.

**Goal 1.K:** To protect the visual and scenic resources of Placer County as important quality-of-life amenities for County residents and a principal asset in the promotion of recreation and tourism.

- **Policy 1.K.1.** The County shall require that new development in scenic areas (e.g., river canyons, lake watersheds, scenic highway corridors, ridgelines and steep slopes) is planned and designed in a manner which employs design, construction, and maintenance techniques that:
  - a. Avoids locating structures along ridgelines and steep slopes;
  - b. Incorporates design and screening measures to minimize the visibility of structures and graded areas;
  - c. Maintains the character and visual quality of the area.
- **Policy 1.K.2.** The County shall require that new development in scenic areas be designed to utilize natural landforms and vegetation for screening structures, access roads, building foundations, and cut and fill slopes.
- **Policy 1.K.3.** The County shall require that new development in rural areas incorporates landscaping that provides a transition between the vegetation in developed areas and adjacent open space or undeveloped areas.
- **Policy 1.K.4.** The County shall require that new development incorporates sound soil conservation practices and minimizes land alterations. Land alterations should comply with the following guidelines:
  - a. Limit cuts and fills;
  - b. Limit grading to the smallest practical area of land;
  - c. Limit land exposure to the shortest practical amount of time;
  - d. Replant graded areas to ensure establishment of plant cover before the next rainy season; and
  - e. Create grading contours that blend with the natural contours on site or with contours on property immediately adjacent to the area of development.
- **Policy 1.K.5.** The County shall require that new roads, parking, and utilities be designed to minimize visual impacts. Unless limited by geological or engineering constraints, utilities should be installed underground and roadways and parking areas should be designed to fit the natural terrain.

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- **Policy 1.K.6.** The County shall require that new development on hillsides employ design, construction, and maintenance techniques that:
  - a. Ensure that development near or on portions of hillsides do not cause or worsen natural hazards such as erosion, sedimentation, fire, or water quality concerns;
  - b. Include erosion and sediment control measures including temporary vegetation sufficient to stabilize disturbed areas;
  - c. Minimize risk to life and property from slope failure, landslides, and flooding; and
  - d. Maintain the character and visual quality of the hillside.

3.1.3 Impact Analysis

Table 3-1

CEQA Checklist for Assessing Project-Specific Potential Impacts to Aesthetic Resources

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
<b>I.</b>	<b>AESTHETICS:</b> Would the Project:				
a)	Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

**Finding: No impact**

No officially designated scenic vistas or scenic land units were identified within or around the Project site. The Bear River, which the Project parallels and crosses, is not designated as a Wild and Scenic River (National Wild and Scenic River System, 2011, California Department of Transportation, 2011). Although not specifically designated or protected, the Project does have the potential to impact an area of scenic attractiveness, a relatively remote rural river canyon. These impacts are discussed below in Section 'C'. Therefore, the Project will have no impact on a designated scenic vista.



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***b. Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway?*****Finding: No impact**

Based on review of the California Department of Transportation State Scenic Highway list and the existing general plan, there is no state scenic highway on or adjacent to the Project site from which the site would be visible (California Department of Transportation, 2011). Highways 20, 49, 80, and 174, all located within 10 miles of the Project site, are all Eligible State Scenic Highways. While all of these routes are eligible, there is not an officially designated state scenic highway within the Project limits, and the Project would not damage scenic resources along a state scenic highway. These roadways are identified in the General Plan as scenic roadways worthy of protection, but none of these roadways fall within the Project limits nor is the Project site visible from the roadway. Therefore, the Project entails no impact to scenic resources within a state scenic highway.

***c. Would the Project substantially degrade the existing visual character or quality of the site and its surroundings?*****Finding: Less than significant with Mitigation Incorporated**

The Project is located along a steep vegetated hillside roughly parallel to the Bear River with few rural residential houses. From these residences, the predominant viewshed is of the adjacent vegetated canyon walls and the Bear River. The area is remote and relatively inaccessible (with the exception of NID access roads). Approximately 5 to 10 houses have at least partial views to the walls of the canal from the north and south side of the Bear River. Where the Project is visible from these residences, the Project is typically in a middle ground position with segments of the concrete box channel/open canal being partially obstructed by foreground or middle ground vegetation adjacent to the canal on the downhill side.

Visually, the Project proposes the conversion of the open water canal with vertical concrete wall support structure, to an access road with controlled density fill slope down to existing grade outside the wall edge. Views of the vertical canal wall will likely remain as they are or be replaced with a fill slope which is proposed to be stabilized and vegetated with a native hydroseed and the dark water surface will be replaced with an access roadway and guardrail. These modifications occur along the same alignment as the existing disturbances which have been in place since the canal's construction in the 1970's. This new infrastructure will be relatively consistent with the visual character of the existing Combie Canal and surrounding environment.

Additionally, a 48-inch aerial pipeline crossing will be constructed adjacent the existing Bear River Siphon aerial support structure as close as possible that construction will allow. The existing structure will remain in place. NID has indicated that this structure will be very similar in size, height, form, distance, materials, color, and general alignment to the existing aerial pipe support structure. It is anticipated that pipelines at either end of the crossing which connect upslope to the adjacent canals will be installed at-grade in a similar fashion to the existing pipeline. Clearing of vegetation and trees for more than 300 linear feet upslope on each side of the structure is anticipated with the installation of this portion of pipeline. There appears to be

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less than five structures with a partial view of the crossing area. Views to and from this area are of a high scenic value (a relatively remote river within a canyon, see photo 3-4). The addition of a second aerial crossing will have a potential aesthetic impact; however, with the implementation of Mitigation Measure AES-01, the potential to degrade the overall visual character or quality of the site and surroundings will be less than significant.

Tree removal will be kept to a minimum along the majority of the Project alignment because the pipes will be constructed within the existing concrete canal; however, some trees will be trimmed and removed to upgrade the access roads, construct the fill slope outside the canal wall, install the temporary bypasses, eliminate overhanging limbs that currently pose a hazard for the canal integrity, and to construct the at-grade portions of the proposed aerial pipeline crossing.

There is also potential for temporary visual impacts during construction. These impacts will be temporary and will only be partially visible from the few surrounding residences within view of the Project site. Views of construction traffic and staging areas along the pipe alignment will be visible from nearby residences.

**Mitigation Measure AES-01:** Design the Bear River Crossing to be aesthetically similar to the existing crossing and minimize impacts to the adjacent hillsides

The proposed Project shall adhere to the following design stipulations:

- The proposed aerial pipeline crossing will cross the river:
  - o Adjacent to and 20 to 25 feet east/west of the existing siphon
  - o At a parallel elevation to the existing siphon
  - o In a suspended manner similar to the existing crossing (Photo 3-3 and 3-4)
  - o Will be painted a neutral color to blend with the surrounding environment (brown, green, or beige earth tones).
- Vegetation and tree clearing along the at-grade portions of the pipeline shall be limited to the greatest extent feasible to that which is necessary to construct and maintain the footings of the pipe supports.

**Mitigation Measure AES-01 Implementation**

**Responsible Party:** NID will review the design drawings for consistency with the existing structure and analyze the pipeline alignment for potential to minimize impacts to vegetation on the adjacent hillside.

**Timing:** NID engineers will review the aesthetic consistency during the pre-design and design phase of the Project.

**Monitoring and Reporting Program:** Upon completion of design, the design drawings will be kept at the NID office.

**Standards for Success:** The proposed aerial pipeline crossing closely matches the existing infrastructure in terms of general size, appearance, elevation, parallel and adjacent location. The at-grade portions of the pipeline propose the minimum amount of vegetation and tree clearing required to construct and maintain the pipeline. They are painted a color that blends with the surrounding environment.

**Mitigation Measure AES-02 – Use Appropriate Soils and Re-vegetate**

In areas requiring significant topographic adjustment (including but not limited to the fill slope along the canal alignment and the at-grade portions of the proposed aerial pipeline crossing), the exposed slopes shall be stabilized per the recommendations of the civil engineer to allow for re-vegetation. If the proposed fill soil is not suitable for plant growth, topsoils shall be specified and reapplied consistently across the new grades per the recommendations of a Certified Professional Soil Scientist (CPSSc) and stabilized/replanted with a site specific hydroseed mix developed by a certified botanist or seed analyst (CSA), to allow for successful reestablishment of the slope with vegetation similar to that of the surrounding hillside.

**Mitigation Measure AES-02 Implementation**

**Responsible Party:** NID

**Timing:** NID engineers will work with the specified professionals during the pre-design and design phase of the Project.

**Monitoring and Reporting Program:** Upon completion of design, the design drawings will be kept at the NID office.

**Standards for Success:** The areas of topographic adjustment and fill blend with the surrounding topography and are constructed with materials which allow for the successful reestablishment of the slopes with vegetation that matches that of the adjacent hillsides.

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

**Finding: Less than significant with Mitigation Incorporation**

No additional permanent lighting is involved with the Project. Temporary lighting may be used during construction but will most likely not occur because construction will only take place during daylight hours. The metallic surfaces used in the construction of the aerial pipe crossing have the potential to create glare. Mitigation measure AES-03 is proposed to mitigate impacts to a less than significant level.

**AES-03: Control Lighting and Glare**

The surfaces of all structures, tubular steel poles, equipment, piping, trestles, catwalks and other associated above-ground Project components shall be made of materials that do not reflect or refract light and given low reflectivity finishes with neutral colors that blend with the surrounding environment in order to minimize the contrast of the structures with their backdrops. In order to minimize reflectivity and glare, the paint to be used (if applicable) shall have a gloss level that does not exceed 30 percent.

**Mitigation Measure AES-03 Implementation**

**Responsible Party:** NID

**Timing:** NID engineers will include paint color and specifications during the pre-design and design phase of the Project.

**Monitoring and Reporting Program:** Upon completion of design, the design drawings will be kept at the NID office.

**Standards for Success:** Exposed metallic surfaces are constructed in a fashion to minimize glare and blend visually with the surrounding environment.



## **3.2 AGRICULTURAL RESOURCES**

### **3.2.1 Regulatory Setting**

#### **Farmland Protection Policy Act (FPPA)**

The Farmland Protection Policy Act (FPPA) of 1981 [Sections 1539-1549 P.L. 97-98, Dec 22, 1981], requires the Secretary of Agriculture to establish and carry out a program to "minimize the extent to which Federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses, and to the extent practicable, will be compatible with state, unit of local government, and private programs and policies to protect farmland." [7 USC 4201-4209 & 7 USC 658].

#### **Williamson Act**

The California Land Conservation Act (Williamson Act) of 1965 is the state's principal policy for the "preservation of a maximum amount of the limited supply of agricultural land in the state" (Cal. Government Code Section 51220(a)). The purpose of the Williamson Act is to preserve agricultural and open space lands by discouraging premature and unnecessary conversion to urban uses. The Williamson Act enables private landowners to contract with counties and cities to voluntarily restrict their land to agricultural and compatible open-space uses. In return for this guarantee by landowners the government jurisdiction assesses taxes based on the agricultural value of the land rather than the market value, which typically results in a substantial reduction in property taxes.

Combie Canal is classified as 'non-enrolled land' based on a review of a 2006 Nevada County Williamson Act Lands map in California published by the Department of Conservation (CDC, 2006).

#### **Nevada County General Plan**

The following general plan goals and policies were considered when analyzing potential Project-related impacts to agricultural resources:

- Goal 16.1** Encourage the use of significant agricultural lands and operations in Rural Regions.
- Goal 16.2** Promote a strong and sustainable local agricultural economy.
- Goal 16.3** Provide for and protect agricultural water supplies.

#### **Placer County General Plan**

The following general plan goal was considered when analyzing potential Project-related impacts to agricultural resources:

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**Goal 7.D:** To maximize the productivity of Placer County's agriculture uses by ensuring adequate supplies of water.

**3.2.2 Impact Analysis**

Table 3-2

**Checklist for Assessing Project Specific Potential Impacts to Agricultural Resources**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
<b>II. AGRICULTURE RESOURCES:</b> Would the Project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The Combie Canal pipeline alignment is located on land designated as 'other land' by the California Department of Conservation Mapping and Monitoring Program (2006 & 2008).

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

**Finding: Less than significant**

The proposed Project activities would not convert any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The Project site is classified as 'Other Land' according to the Important Farmland Mapping and Monitoring Program. Other land is described as vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres. (CDC, 2006 & 2008) In addition, indirect impacts from the Project will increase the reliability of raw water to the farming areas in the southwestern portion of the NID boundaries. Therefore, impacts are considered less than significant.

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

**Finding: Less than significant**

The Project area is currently zoned as Public and Rural Land, according to the Nevada County General Plan (Nevada County General Plan, 1994) and rural residential land according to the Placer County General Plan (Placer County General Plan, 1994). The Project area is located on non-agricultural land, based on a review of Department of Conservation records as of 2006 and 2008. These parcels are not registered under the Williamson Act based on a review of the most recent Williamson Act lands map published by the Department of Conservation in 2006. The installation of the replacement pipeline will not change any current land uses. Similar to the existing conditions, the new pipeline will function as a water pipeline. Therefore, impacts are considered less than significant.

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

**Finding: Less than significant**

The Project proposes the installation of dual above ground pipelines within the existing Combie Phase 1 Canal (Nevada County) and the addition of an aerial siphon parallel to the Bear River. The NID Combie Canal and Bear River siphon is on land that is currently designated by the Nevada and Placer County General Plan as Public, Rural, and Rural Residential. The lands the canal traverse do not support agriculture or forest land. Therefore, the installation of the pipeline and aerial siphon will not conflict with existing zoning for or cause rezoning of forest land, timberland, or timberland zoned timberland production. The proposed Project is considered to have a less than significant impact.

- d. *Would the Project result in the loss of forest land or conversion of forest land to non-forest use?***

**Finding: Less than significant**

The Project proposes the pipeline replacement of the existing NID Combie Canal on land that is currently designated by the Nevada and Placer County General Plan as Public, Rural, and Rural Residential land. The Project may entail the selected removal of some oak and grey pine trees that overhang the canal and pose a current danger to its reliability. In addition, the installation of the new Bear River Siphon will entail the clearing of an old access road and a 300 foot by 100 foot corridor. This area is not designated as forestland and therefore will not result an overall significant conversion of forestland to non-forestland uses. Therefore, the potential impacts to forestland are considered less than significant.

- e. *Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?***

**Finding: Less than significant**

The Project proposes the pipeline replacement of the existing NID Combie Canal on land that is currently designated by the Nevada and Placer County General Plan as Public, Rural, and Rural Residential. The Project will not involve any other changes in the existing environment that would result in conversion of farmland or forestland to non-agricultural or non-forest use. Therefore, impacts are considered less than significant.



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**3.3 AIR QUALITY****3.3.1 Environmental Setting**

The Project is located in Placer and Nevada County within the Mountain Counties Air Basin. Air quality problems in these Counties are primarily related to commuting in motor vehicles to and from the Sacramento area. According to the California Air Resources Board (CARB), the Mountain Counties "Air Basin violates the State ozone standard due to transport from the Sacramento Valley, San Joaquin, and San Francisco Bay area air basins. Eastward flowing surface winds can move air pollution from these adjoining air basins up the mountain valleys during the daytime, and back down at night" (CARB, 2010).

The Northern Sierra Air Quality Management District (NSAQMD) is responsible for the management of air quality in Nevada County and the Placer County Air Pollution Control District (PCAPCD) is responsible for the management of air quality in Placer County. According to the NSAQMD, the pollutants of greatest concern are ozone, particulate matter, and air toxics. The PCAPCD pollutants of greatest concern are ozone and Particulate Matter. Table 3-3.1 describes Nevada County Area designations for State and National Ambient Air Quality and Table 3-3.2 describes Placer County Area designations for State and National Ambient Air Quality (CARB, 2010). Project specific impacts within the given AQMD were analyzed using URBMIS software. The results of the air quality analysis can be found in Table 3-3.3 below.

**3.3.2 Regulatory Setting**

The Project site is within the Mountain Counties Air Basin and is under the jurisdiction of the Northern Sierra Air Quality Management District (NSAQMD) and the Placer County Air Pollution Control District (PCAPCD), California Air Resources Board (CARB), and Environmental Protection Agency (EPA) jurisdiction.

**Federal Clean Air Act (FCAA)**

The FCAA establishes the framework for modern air pollution control. The Act, enacted in 1970 and amended in 1990, directs the EPA to establish ambient air quality standards for six pollutants: ozone (O<sub>3</sub>), carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO<sub>2</sub>), particulate matter (PM<sub>10</sub>, PM<sub>2.5</sub>), and sulfur dioxide (SO<sub>2</sub>). These standards are divided into primary and secondary standards, the former are set to protect human health, the latter are set to protect environmental values, such as plant and animal life.

**California Clean Air Act (CCAA)**

The California CAA focuses on attainment of the California Ambient Air Quality Standards (CAAQS). These standards are more stringent than federal regulations with respect to certain Criteria Pollutants and averaging periods. Responsibility for monitoring the CAAQS is placed on the Air Resources Board (ARB) and local air pollution control districts.

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Table 3-3.1

**Nevada County Area Designations for State and National Ambient Air Quality**

Criteria Pollutants	State Designation	National Designation
1-hour Ozone	Non-attainment	See footnote a
8-hour Ozone <sup>a, b</sup>	Non-attainment	Non-attainment
PM <sub>10</sub>	Non-attainment	Unclassified
PM <sub>2.5</sub>	Unclassified	Unclassified / Attainment
Carbon Monoxide	Unclassified	Unclassified / Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Unclassified
Sulfates	Attainment	-
Lead	Attainment	Attainment
Hydrogen Sulfide	Unclassified	-
Visibility Reducing Particles	Unclassified	-

(a) The National 1-Hour Ozone Standard was revoked in June 2005 and replaced with an 8-hour standard. (Source: CARB, 2010)

Table 3-3.2

**Placer County Area Designations for State and National Ambient Air Quality**

Criteria Pollutants	State Designation	National Designation
1-hour Ozone	Non-attainment	See footnote a
8-hour Ozone <sup>a, b</sup>	Non-attainment	Non-attainment
PM <sub>10</sub>	Non-attainment	Unclassified
PM <sub>2.5</sub>	Unclassified	Unclassified
Carbon Monoxide	Unclassified	Unclassified / Attainment
Nitrogen Dioxide	Attainment	Unclassified / Attainment
Sulfur Dioxide	Attainment	Unclassified
Sulfates	Attainment	-
Lead	Attainment	-
Hydrogen Sulfide	Unclassified	-
Visibility Reducing Particles	Unclassified	-

(a) The National 1-Hour Ozone Standard was revoked in June 2005 and replaced with an 8-hour standard. (Source: CARB, 2010)

**Northern Sierra Air Quality Management District (NSAQMD)**

NSAQMD adopted Rules 202 and 226, to improve air quality in the AQMD. Below is a summary of these rules as they apply to the proposed Project:

**RULE 202 - Visible Emission limitations:** During site preparation, alternatives to open burning of vegetative material shall be used unless otherwise deemed infeasible by NSAQMD. Among suitable alternatives is chipping, mulching, or conversion to biomass fuel. Construction equipment exhaust emissions shall not exceed NSAQMD Rule 202 Visible Emission limitations.

**RULE 226 – Dust Control:** The purpose of this rule is to reduce and control fugitive dust emissions to the atmosphere. This rule shall apply to any person engaged in: Dismantling or demolition of buildings; Public or Private construction; Processing of solid bulk materials (i.e., sand, gravel, rock, dirt, sawdust, ash, etc.); operation of machines or equipment; and operation and use of unpaved parking facilities. Any person shall take all reasonable precautions to prevent dust emissions. Reasonable precautions may include, but are not limited to, cessation of operations, cleanup, sweeping, sprinkling, compacting, enclosure, chemical or asphalt sealing, and use of wind screens or snow fences.

No person may disturb the topsoil or remove ground cover on any real property and thereafter allow the property to remain unoccupied, unused, vacant or undeveloped unless reasonable precautions are taken to prevent generation of dust. A dust control plan must be submitted to and approved by the Air Pollution Control Officer before topsoil is disturbed on any project where more than one (1) acre of natural surface area is to be altered or where the natural ground cover is removed. In the dust control plan, the Air Pollution Control Officer may require use of palliatives, reseeding, or other means to minimize windblown dust.

For any proposed development, division of land, special use permit application of zone change, the Air Pollution Control Officer may require the applicant to submit soils data and any other pertinent data for the area in which the development is proposed.

If a determination is made that the disturbance (per 3.1.A.) or development (per 3.1.B.) of the site may cause the generation of dust, the Air Pollution Control Officer may require:

- Phased clearing of the land;
- The use of palliatives;
- The use of water;
- The use of snow fencing;
- The use of wind screen;
- Reseeding;

After commencement of development, if the approved elements of the dust control plan prove ineffective, the Air Pollution Control Officer may require additional control measures to be instituted. Phasing will not be required as a control strategy after a project is under construction.

If a development requires a special use permit, the Air Pollution Control Officer may require the dust control plan to be submitted and become a condition of the special use permit process.

No person shall cause or allow the handling or storage of any materials on a manner which results, or may result in the generation of dust.

Any vehicle operation on a paved roadway with a load of any bulk material susceptible to being dropped, spilled, leaked, or otherwise escaping there from and being entrained in the air, must take one of the following control measures:

- Six (6) inches of freeboard is maintained within the bed of the vehicle. For the purposes of this regulation, "freeboard" means the vertical distance from the highest portion of the edge of the load to the lowest part of the rim of the truck bed.
- Materials contain enough moisture to control dust emissions from the point of origin to their final destination. Whenever possible, the use of dust suppressants must be applied in conjunction with the water.
- In the event that measures 1 or 2 are ineffective in preventing materials from escaping, tarps or other cargo covers shall be employed.

This section does not prohibit a public maintenance vehicle from depositing sand on a paved roadway to enhance traction, or sprinkling water or other substances to clean or maintain a highway.

Rocked/paved entry aprons or other effective cleaning techniques (e.g., wheel washers), may be required by the Air Pollution Control Officer to prevent tracking onto paved roadways. Paved entry aprons may include road section or coarse aggregate or steel grate to "knock off" dirt which accumulates on the vehicle and/or vehicle wheels.

Any material which is tracked onto a paved roadway must be removed (swept or washed) as quickly and as safely as possible. Exceptions to this provision may be made by the Air Pollution Control Officer or the project Manager for the construction, maintenance, and/or repair of paved roadways and for the application of de-icing and traction materials for wintertime driving safety.

### **Placer County Air Pollution Control District (PCAPCD)**

**Rule 202 Visible Emissions:** A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three (3) minutes in any one (1) hour which is:

- B. Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke.



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**Rule 207 Particulate Matter:** For the Sacramento Valley Air Basin and the Mountain Counties Air Basin portions of the Placer County Air Pollution Control District a person shall not release or discharge into the atmosphere from any source or single processing unit, exclusive of sources emitting combustion contaminants only, particulate matter emissions in excess of: 0.1 grains per cubic foot of gas at District standard conditions.

**Rule 228 Fugitive Dust:** Establishes standards to be met by activities generating fugitive dust. Rule 228 applies to the entire County of Placer and addresses fugitive dust generated by construction and grading activities. Fugitive dust is particulate matter discharged into the atmosphere due to a man-made activity or condition. Examples of dust sources that are subject to the rule are excavating and trenching, drilling, boring, earthmoving and grading operations, pavement or masonry cutting operations, brush clearing, travel on unpaved roads within construction sites, and wind-blown dust from uncovered graded areas and storage piles.

Rule 228 establishes standards to be met by activities generating fugitive dust. Among these standards to be met is a prohibition on visible dust crossing the property boundary, generation of high levels of visible dust (dust sufficient to obscure vision by 40%), and controls on the track-out of dirt and mud on to public roads. The regulation also establishes minimum dust mitigation and control requirements.

Please see the Dust Control Plan Instructions and Application and the Fugitive Dust Control Requirements Fact Sheet in Appendix A. (PCAPCD, 2010)

**Nevada County General Plan**

As part of the General Plan, Nevada County (1995) has adopted certain goals intended to improve air quality. Table 3.3-1 above lists the current Area Designations for Nevada County State and National Ambient Air Quality. The following General Plan policies relating to air quality are relevant to the proposed Project:

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

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

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

**Policy 14.4** Encourage and cooperate with the Northern Sierra Air Quality Management District or any successor agency, to:

- a. Work with the county, local public utility districts, other public agencies, and private sector to encourage the development and implementation of educational and incentive programs to encourage energy conservation, house weatherization, solar energy use in new and existing buildings, and provide air quality monitoring and advisory and programs (e.g. daily standard air pollution index data);

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- b. Develop community biomass program in cooperation with the Nevada County department of sanitation and existing homeowner associations, and provide incentives for composting, mulching, grinding, cogeneration, feedstocks, and chipping in-lieu if outdoor burning
- c. Adopt control measures to reduce pollutant emissions from open burning;
- d. Develop a program to regulate and control fugitive dust emissions from construction projects; and
- e. Identify and establish visibility standards for air quality in the County

**Policy 14.6** For new construction, the County shall prohibit the installation of non-EPA certified and non-EPA exempt solid fuel burning devices.

**Policy 14.7A** The County shall, as part of its development review process, ensure that proposed discretionary developments address the requirements of NSAQMD Rule 226.

**Placer County General Plan**

**Goal 6.F:** To protect and improve air quality in Placer County

**Policy 6.F.1** The County shall cooperate with other agencies to develop a consistent and effective approach to air quality planning and management.

**Policy 6.F.2** The County shall develop mitigation measures to minimize stationary source and area source emissions.

**Policy 6.F.3** The County shall support the Placer County Air Pollution Control District (PCAPCD) in its development of improved ambient air quality monitoring capabilities and the establishment of standards, thresholds, and rules to more adequately address the air quality impacts of new development.

**Policy 6.F.4** The County shall solicit and consider comments from local and regional agencies on proposed projects that may affect regional air quality.

**Policy 6.F.5** The County shall encourage project proponents to consult early in the planning process with the County regarding the applicability of Countywide indirect and area wide source programs and transportation control measures (TCM) programs. Project review shall also address energy efficient building and site designs and proper storage, use, and disposal of hazardous materials.

**Policy 6.F.6** The County shall require project-level environmental review to include identification of potential air quality impacts and designation of design and other appropriate mitigation measures or offset fees to reduce impacts. The County shall dedicate staff to work with project proponents and other agencies in identifying, ensuring the implementation of, and monitoring the success of mitigation measures.

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**Policy 6.F.7** The County shall encourage development to be located and designed to minimize direct and indirect air pollutants.

**Policy 6.F.8** The County shall submit development proposals to the PCAPCD for review and comment in compliance with CEQA prior to consideration by the appropriate decision-making body.

**Policy 6.F.9** In reviewing project applications, the County shall consider alternatives or amendments that reduce emissions of air pollutants.

**Goal 6.G** To integrate air quality planning with the land use and transportation planning process.

**3.3.3 Impact Analysis**

Potential Project related impacts and the mitigation to reduce such impacts to less than significant levels are discussed below. The air emissions for the entire construction phase are analyzed together. In addition, operational and area source air emissions are analyzed. The proposed Project activities will take multiple construction seasons to complete. These construction seasons will occur during low flow periods (October-April). In order to analyze air emissions for the Project, 2011-2014 were evaluated. While these may not be the exact years of construction, the emissions analysis should not significantly change and the analysis presented below represents the Project related emissions.

Table 3-3.3  
**NID Combie Phase 1 Canal Bear River Siphon Replacement Project**  
**URBEMIS Air Emissions Model**

3/11/2011 4:01:49 PM

Urbemis 2007 Version 9.2.4

Summary Report for Annual Emissions (Tons/Year)

Project Name: Combie Phase 1 Canal Bear River Siphon Replacement Project

Project Location: Mountain Counties Air Basin

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

<b>CONSTRUCTION EMISSION ESTIMATES</b>										
	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM10</u>	<u>PM10</u>	<u>PM2.5</u>	<u>PM2.5</u>	<u>PM2.5</u>
					<u>Dust</u>	<u>Exhaust</u>		<u>Dust</u>	<u>Exhaust</u>	
2011 TOTALS (tons/year unmitigated)	0.13	0.93	0.53	0.00	0.35	0.06	0.41	0.07	0.05	0.13
2012 TOTALS (tons/year unmitigated)	0.48	3.73	1.91	0.00	0.00	0.20	0.20	0.00	0.18	0.18
2013 TOTALS (tons/year unmitigated)	0.53	4.11	2.21	0.00	0.00	0.21	0.21	0.00	0.20	0.20

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2014 TOTALS (tons/year unmitigated)	0.42	3.26	1.81	0.00	0.55	0.16	0.71	0.11	0.15	0.26
<b>EPA General Conformity “de minimis” Threshold (tons/yr)</b>	<b>10</b>	<b>10</b>	<b>100</b>	<b>100</b>	<b>70</b>	<b>70</b>	<b>70</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Nevada County Emissions (Tons/ Day)</b>	<b>11.8</b>	<b>11.5</b>	<b>83.4</b>	<b>0.5</b>	<b>20.5</b>	<b>20.5</b>	<b>20.5</b>	<b>8.1</b>	<b>8.1</b>	<b>8.1</b>
<b>Placer County Emissions (Tons/ Day)</b>	<b>24.8</b>	<b>28.7</b>	<b>144.4</b>	<b>0.4</b>	<b>27.1</b>	<b>27.1</b>	<b>27.1</b>	<b>9.7</b>	<b>9.7</b>	<b>9.7</b>
<b>AREA SOURCE EMISSION ESTIMATES</b>										
	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>		<u>PM10</u>			<u>PM2.5</u>	
TOTALS (tons/year, unmitigated)	0.01	0.00	0.14	0.00		0.00			0.00	

<b>OPERATIONAL (VEHICLE) EMISSION ESTIMATES</b>										
	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>		<u>PM10</u>			<u>PM2.5</u>	
TOTALS (tons/year, unmitigated)	0.00	0.00	0.01	0.00		0.00			0.00	
<b>EPA General Conformity “de mimimis” Threshold (tons/yr)</b>	<b>10</b>	<b>10</b>	<b>100</b>	<b>100</b>		<b>70</b>			<b>100</b>	
<b>Nevada County Emissions (Tons/ Day)</b>	<b>11.8</b>	<b>11.5</b>	<b>83.4</b>	<b>0.5</b>		<b>20.5</b>			<b>8.1</b>	
<b>Placer County Emissions (Tons/ Day)</b>	<b>24.8</b>	<b>28.7</b>	<b>144.4</b>	<b>0.4</b>		<b>27.1</b>			<b>9.7</b>	

Table 3-3.4  
**CEQA Checklist for Assessing Project-Specific Potential Impacts to Air Quality**

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
<b>III.</b>	<b>AIR QUALITY -- Would the Project:</b>				
a)	Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	Violate any air quality standard or contribute to an existing or Projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d)	Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

**Finding: Less than significant with mitigation incorporated**

**Construction**

The Nevada and Placer County General Plan and the NSAQMD and PCAPCD have adopted goals and rules intended to improve air quality in Nevada and Placer County and the air basin as a whole. The Project applicable goals and rules of Nevada and Placer County and the NSAQMD and PCAPCD are listed above in the regulatory framework of this section. The Combie Canal Phase 1 Replacement Project is not in conflict with or obstructing the implementation of these goals and rules because mitigation measures and best management practices (BMPs) will be implemented by NID contractors. The proposed Project activities will take multiple construction seasons to complete. These construction seasons will occur during low flow periods (October-April). Canal operation activities will be similar to existing conditions; therefore, the Project does not represent a significant addition of long term impacts to air quality. The Project will entail the temporary addition of construction vehicles (typically no more than 15 cars, trucks, or other vehicular equipment will be associated with the Project on any given day). Therefore, there will not be excessive localized CO concentrations due to motor vehicle emissions, Project traffic, or a Project caused increase in traffic.

The access roads to the Combie Canal site are paved, gravel, and dirt surfaces but do not generate excessive amounts of dust because the road is not traveled often and is primarily used for canal access or residential access. Potential impacts will occur within the Project areas during grading, excavating, and paving activities. Nevada and Placer County are in non-attainment for State and Federal ozone and State PM<sub>10</sub>. As a result, an incremental increase in background ozone and PM<sub>10</sub> levels would be considered a significant impact and implementation of mitigation measure AIR-01 will reduce air emissions impacts to less-than-significant levels.

During construction, NID shall require the construction contractor to implement mitigation Measure AIR-01 to maintain potential construction-related air quality impacts at acceptable levels. This Project will be consistent with the goals of the NSAQMD and PCAPCD through the implementation of Mitigation Measure AIR-01. Therefore, potential air quality impacts are judged to be less than significant with the following mitigation incorporated.

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**Mitigation Measure AIR-01: Dust and Emissions Control Measures.**

NID shall require that the selected contractor prepare and implement a Project Dust and Emissions Control Program prior to construction. The following will be conducted throughout the construction period to limit and control dust and air emissions:

- Ensure compliance with all Rules and Regulations of NSAQMD and PCAPCD, the Nevada and Placer County General Plans, and County Zoning Ordinances.
- Utilize watering trucks for dust control, ensuring that soil moisture is adequate to eliminate or substantially reduce any visible dust emissions.
- Storage piles would be kept wet or covered during construction.
- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard.
- Vehicles and equipment traveling across unpaved areas would be kept to speeds of less than 15 miles per hour (speed limit must be posted).
- All grading and earth moving operations shall be suspended when sustained wind speeds exceed 20 mph.
- The Project contractor shall ensure that all construction equipment is properly maintained.
- If dust or dirt accumulates on the roadways, sweep (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.
- Employ best management construction practices to avoid unnecessary emissions (e.g., trucks and vehicles in loading and unloading queues would turn their engines off when not in use). Vehicle and equipment idling shall not be allowed to exceed five minutes.
- Encourage construction worker commuters to carpool or employ other means to reduce trip generation.

**Mitigation Measure AIR-01 Implementation**

**Responsible Party:** NID would require that the contractor prepare and implement a Construction Emissions and Dust Control Program and to mitigate equipment exhaust emissions during all phases of grading and activities that generate dust.

**Timing:** An Emissions and Dust Control Program must be prepared and approved by NID prior to construction and implemented during all phases of grading and activities that generate dust.

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**Monitoring and Reporting Program:** During construction, regular inspections will be performed by a NID representative and reports will be kept on file by NID for inspection by the NSAQMD, PCAPCD, or other interested parties.

**Standards for Success:** Visible emissions and dust are kept to the lowest practicable level. The goal is to minimize dust and emissions during construction and to the extent feasible, complaints from the public.

***b. Would the Project violate any air quality standard or contribute to an existing or Projected air quality violation?***

**Finding: Less than significant with mitigation incorporated**

The Project would not violate any air quality standard by itself but could contribute to existing regional air quality exceedances. Nevada and Placer County are in non-attainment for State and Federal ozone and State PM<sub>10</sub>. Ozone contributions from the Project are expected to be minimal (Table 3.3-3, URBEMIS, 2011). Nevada and Placer County are in attainment or unclassified for all other criteria pollutants (CARB, 2010). The construction of the pipeline replacement in the Combie Canal and the Bear River Siphon, involves operating construction equipment such as tractors, cranes, excavators, and sweepers. These activities would temporarily produce additional NO<sub>x</sub>, SO<sub>x</sub>, and particulate matter.

The Combie Canal construction will be completed over multiple construction seasons; Based on URBEMIS air quality modeling, short-term construction activities are expected to generate minor emissions below standard thresholds.

However, despite the minimal contribution to air quality degradation, air quality impacts are considered significant due to pre-existing regional non-attainment for ozone and PM<sub>10</sub>. As such Project related air impacts require implementation of air quality mitigation measure AIR-01 (above).

NID will implement Mitigation Measure AIR-01, which would include a Dust and Emissions Control Program, to effectively reduce the levels of dust and air emissions from construction to a less than significant level. Canal operation activities will be similar to existing conditions; therefore, no long-term impacts to air quality would occur. Therefore, potential impacts to air quality standards or contribution to an existing or Projected air quality violation are considered less than significant with mitigation incorporated.

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

**Finding: Less than significant with mitigation incorporated**

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The construction of the Project involves operating heavy equipment such as Concrete/ Industrial Saws, Cranes, Crawler Tractors, Dumpers/ Tenders, Excavators, Generator Sets, Graders, Off Highway Trucks, Other Equipment, Other Material Handling Equipment, Pumps, Rollers, Rough Terrain Forklifts, Rubber Tired Loaders, Skid Steer Loaders, Surfacing Equipment, Sweepers/ Scrubbers, Tractors/ Loaders/ Backhoes, and Water Trucks; activities that would temporarily produce additional dust and air emissions. Any increase in non-attainment pollutants is considered a cumulative net increase, and therefore constitutes a significant impact. NID will implement Mitigation Measure AIR-01 (see above), which would include a Dust and Air Emissions Control Program, to effectively reduce the levels of dust and vehicle related emissions from construction to a less than significant level. Additionally, no ozone precursors, such as CO, NOx emissions, would exceed quantitative thresholds (URBEMIS, 2011). Therefore, potential Project-related impacts to criteria pollutants are considered less than significant with mitigation incorporated.

**d. *Would the Project expose sensitive receptors to substantial pollutant concentrations?***

**Finding: Less than significant with mitigation incorporated**

The construction of the Combie Canal Phase 1 replacement involves operating heavy equipment and construction activities that would temporarily produce additional dust and air emissions. Current canal operations do not significantly add to air pollution or dust.

The nearest sensitive receptor in the vicinity of the Combie Canal Project site that would be affected by construction generated air emissions are houses located along the Bear River near the Combie Canal. Air emissions impacts would be minimal with Mitigation Measure AIR-01 incorporated. Therefore, Mitigation Measure AIR-01 (above) will be implemented to reduce the concentrations of pollutants to a less than significant level.

**e. *Would the Project create objectionable odors affecting a substantial number of people?***

**Finding: Less than significant**

While offensive odors rarely cause any physical harm, they can still be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and the NSAQMD. The occurrence and severity of odor impacts depends on numerous factors, including the nature, frequency, and intensity of the source, the wind speed and direction, and the sensitivity of the receptor.

The nearest sensitive receptor in the vicinity of the Combie Canal Project site that would be affected by odors are houses located along the Bear River near the Combie Canal. Air emissions impacts would be minimal with Mitigation Measure AIR-01 incorporated. Current canal operations do not add to odors in the area.

This proposed Project involves the pipeline replacement of the Combie Canal and Bear River Siphon and will not contribute any odors in the area. Given the distance from sensitive receptors and lack of current odor complaints from the public, the impacts from odor are expected to be less than significant.



### **3.4 BIOLOGICAL RESOURCES**

#### **3.4.1 Environmental Settings**

##### **Regional Setting**

The Project site is located in the Sierra Nevada foothills at approximately 1,550 feet above sea level. The Project site extends from the Combie Reservoir 9,100 linear feet to the west along the Bear River to the Bear River Siphon. The Project area is located on a south-facing slope with rolling hills to the north and the Bear River to the south. The canal is approximately 200 feet to the north of Bear River, but follows the meandering of the river. Mean annual precipitation is approximately 36.51 inches, while annual mean temperature ranges from 49.2 to 71.8 degrees Fahrenheit.

#### **3.4.2 Regulatory Settings**

##### **Federal Regulations**

##### **Section 404 of the Clean Water Act (CWA)**

The United States Army Corps of Engineers (Corps) and the Environmental Protection Agency (EPA) regulate the discharge of dredge or fill material into waters of the United States under Section 404 of the CWA ("waters of the United States" include wetlands and lakes, rivers, streams, and their tributaries). Wetlands are defined for regulatory purposes as areas "...inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated solid conditions" (333 CFR 328.3, 40 CFR 230.3). Project proponents must obtain a permit from the Corps for all discharges of fill material into waters of the United States, including wetlands, before proceeding with a proposed action. Known waters of the U.S. in the Project area include the Combie Reservoir, Bear River, and all Bear River tributaries. Wetlands associated with these waters would also be considered waters of the U.S.

The Phase 1 Canal currently intercepts two ephemeral drainages to the Bear River that may be considered jurisdictional waters by the Corps. The Combie Phase I Canal may potentially be considered a Waters of the U.S. if the Corps determines that connects two waters of the US. The need for jurisdictional determination and CWA Section 404 permit from the Corps should be verified with the Corps prior to placing fill in the canal. If the canal is considered jurisdictional under Section 404, and/or work will occur within a tributary to the Bear River, then it is likely that at least one of the Corps Nationwide Permits could authorize the activity.

##### **Section 401 of the Clean Water Act (CWA):**

CWA Section 401 compliance is required for any project requiring a federal action (i.e. Corps permit or federal funding) with construction that could have an impact to surface water quality. Because the proposed Project is parallel to the Bear River, even if well out of the ordinary high

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water mark and riparian zone, it will require a CWA 401 Water Quality Certification. In addition, the RWQCB is a responsible agency under CEQA and will review the CEQA document.

**Federal Endangered Species Act (ESA)**

The US Fish and Wildlife Service (USFWS) has jurisdiction over species listed as threatened or endangered under Section 9 of the ESA. The act protects listed species from harm or take which is broadly defined as "...the action of harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting, or attempting to engage in any such conduct." For any project involving a federal agency in which a listed species could be affected, the federal agency must consult with the USFWS in accordance with Section 7 of the ESA. The USFWS issues a biological opinion and, if the project does not jeopardize the continued existence of the listed species, issues an incidental-take permit.

Consultation with the USFWS would be necessary if a proposed action may affect suitable habitat for a federally listed species (such as the valley elderberry longhorn beetle or the California red-legged frog). This consultation would proceed under Section 7 of the ESA if a federal action is part of the proposed action (such as the Corps granting a Section 404 permit for the project) or through Section 10 of the Action if no such nexus were available.

**Migratory Bird Treaty Act and Bald and Gold Eagle Protection Act**

The Migratory Bird Treaty Act (MBTA, 16 United States Code Section 703-711) and the Bald and Golden Eagle Protection Act (16 USC Section 668) protect certain species of birds from direct take. The MBTA protects migrant bird species from take through setting hunting limits and seasons and protecting occupied nests and eggs. Additionally, there are California Department of Fish and Game Codes (3503, 3503.5 and 3800) which further protect nesting birds and their parts (See State Regulations Sections below). The Bald and Gold Eagle Protection act prohibits the take or commerce of any part of these species. The USFWS administers both Acts and reviews federal agency actions that may affect species protected by the Acts.

Typically, it is recommended that all vegetation removal be conducted outside of the nesting season, which generally falls between February 1 and August 30, however this may vary from year to year depending on various environmental conditions. If vegetation must be removed during the breeding season, a qualified biologist should conduct a nest survey of the entire project site immediately prior to the removal of vegetation.

**State Regulations****California Endangered Species Act**

The California Department of Fish and Game (CDFG) has jurisdiction over species listed as threatened or endangered under section 2080 of the California Fish and Game Code. The California Endangered Species Act (CESA) prohibits take of state-listed threatened and endangered species. The state Act differs from the federal Act in that it does not include habitat destruction in its definition of *take*. The California Fish and Game Code defines *take* as "hunt,

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pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” The CDFG may authorize *take* under the CESA through Sections 2081 agreements. If the results of a biological survey indicate that a state-listed species would be affected by the project, the CDFG would issue an Agreement under Section 2081 of the CDFG Code and would establish a Memorandum of Understanding for the protection of state-listed species.

CDFG maintains lists for Candidate-Endangered Species and Candidate-Threatened Species/California candidate species are afforded the same level of protection as listed species. California also designates Species of Special concern, which are species of limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational or educational values. These species do not have the same legal protection as listed species, but may be added to official lists in the future.

California special status species such as the western pond turtle, foothill yellow-legged frog, brandegees clarkia, galile's cave harvestman, and jepson's onion are either known to occur within five miles of the Project and/or have a low to moderate potential for occurring in the Project area.

**Streambed Alteration Agreements: CDFG Code Section 1600 et seq.**

CDFG has jurisdictional authority over wetland resources associated with rivers, streams, and lakes under Sections 1600–1616. CDFG has the authority to regulate all work under the jurisdiction of the State of California that would substantially divert, obstruct, or change the natural flow of a river, stream, or lake; substantially change the bed, channel, or bank of a river, stream, or lake; or use material from a streambed.

In practice, CDFG marks its jurisdictional limit at the top of the stream or lake bank or the outer edge of the riparian vegetation, where present, and sometimes extends its jurisdiction to the edge of the 100-year floodplain. Because riparian habitats do not always support wetland hydrology or hydric soils, wetland boundaries, as defined by CWA Section 404, sometimes include only portions of the riparian habitat adjacent to a river, stream, or lake. Therefore, jurisdictional boundaries under Section 1600 may encompass a greater area than those regulated under CWA Section 404.

CDFG enters into a streambed alteration agreement with an applicant and can impose conditions on the agreement to ensure that no net loss of wetland values or acreage will be incurred. The streambed or lakebed alteration agreement is not a permit, but a mutual agreement between CDFG and the applicant.

The proposed Project does not entail work within CDFG SAA jurisdiction. The Canal is located above the floodplain and riparian zone. The Bear River Siphon Crossing is located approximately 80 feet above the river, on cliffs outside the riparian zone. Therefore, a SAA will not likely be required for the proposed Project. If CDFG determines the tributaries to the Bear River have a defined bed, bank and riparian zone than a streambed alteration agreement for the Projects may be necessary.

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**Nesting Migratory Bird and Raptors: CDFG Code Sections 3503, 3503.5, and 3800**

Sections 3503, 3503.5, and 3800 of the California Department of Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs. Implementation of the take provisions requires that project-related disturbance at active nesting territories be reduced or eliminated during critical phases of the nesting cycle (March 1 – August 15, annually). Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) or the loss of habitat upon which the birds depend is considered "taking" and is potentially punishable by fines and/or imprisonment. Such taking would also violate federal law protecting migratory birds (e.g., MBTA above).

**CEQA Guidelines Section 15380**

CEQA Guidelines section 15380(b) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specific criteria. This section was included in the guidelines primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on, for example "candidate species" that has not yet been listed by the USFWS or CDFG. CEQA, therefore, enables an agency to protect a species from significant project impacts until the respective government agencies have an opportunity to list the species as protected, if warranted.

In general, plants appearing on the California Native Plant Society List 1 (Plants believed to be extant and rare threatened or endangered plants in California) and List 2 (Rare, threatened, or endangered plants in California but more numerous elsewhere) are considered to meet CEQA's Section 15380 criteria. Impacts to these species would therefore be considered "significant" requiring mitigation.

**State Oak Woodland Regulations**

State laws that regulate protection of oak woodlands include Professional Forester's Law (PFL) and CEQA according to Public Resources Code Section 21083.4. Oak woodlands are defined as areas having 10% oak canopy cover or greater. "Oaks" are defined in Public Resources Code Section 21083.4 as a native tree species in the genus *Quercus*, that is 5 inches diameter at breast height (dbh) or greater. The Oak Woodlands Conservation Act (SB 1334) provides funding for the conservation and protection of oak woodlands in California. Oak woodland habitats are protected under both State, Placer County, and Nevada County regulations. However, as a public utility, NID is not required to adhere to these regulations.

**Nevada County General Plan**

**Goal 13.1** Identify and manage significant areas to achieve sustainable habitat.

**Policy 13.1** Where significant environmental features, as defined in Policy 1.17, are identified during review of projects, the County shall require all portions of the project site that contain or influence said areas to be retained as non-disturbance open space through clustered



development on suitable portions of the project site, or other means where mandatory clustering cannot be achieved. The intent and emphasis of such open space designation and non-disturbance is to promote continued viability of contiguous or inter-dependent habitats by avoiding fragmentation of existing habitat areas and preserving movement corridors between related habitats. Vegetation management for the benefit of habitat preservation or restoration shall be considered consistent with the intent of this policy.

**Policy 13.2** As part of the Comprehensive Site Development Standards, include standards to minimize removal of existing vegetation and require installation and long-term maintenance of landscaping in Chapter 13: Wildlife and Vegetation Element Nevada County General Plan Volume I - Page 13-5 setbacks and buffer areas. These standards shall be applicable to all discretionary projects and to all ministerial projects other than a single-family residence located on an individual lot. Tree removal may be allowed where necessary to comply with public right-of-way development or dedication, or development of required site access and public utilities. Individual trees or groups of trees shall be protected during construction to prevent damage to the trees and their root systems. Vegetation in proximity to structures shall conform to applicable fire protection standards.

**Policy 13.2A** Project review standards shall include a requirement to conduct a site-specific biological inventory to determine the presence of special status species or habitat for such species that may be affected by a proposed project. The results of the biological inventory shall be used as the basis for establishing land use siting and design tools required to achieve the objective of no net loss of habitat function or value for special status species. Where a Habitat Management Plan is deemed appropriate, the Plan shall be prepared to comply with the requirements of the Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA). The plan shall provide the background data, impact analysis, and mitigation programs necessary to obtain a FESA Section 10(a) and CESA Section 2081 permit authorizing incidental take of federal and state listed threatened and endangered species that occur in areas proposed for future development. Prior to implementation of an adopted Habitat Management Plan, project applicants proposing the development of a project that would impact a federal or state listed species, or a species that is proposed for listing, shall be individually responsible for obtaining federal and state incidental take permits on a project-by-project basis.

**Policy 13.3** As part of the Comprehensive Site Development Standards, require the maximum feasible use of drought tolerant native plant species for landscaping of all new multi-family residential, commercial, industrial, and public projects. Invasive, non-native plants, as determined by a landscape architect or other similar expert, that may displace native vegetation on adjoining undeveloped lands shall not be used. Landscaping with native trees and shrubs shall be encouraged to provide suitable habitat for native wildlife, particularly in proposed open space uses of future development.

**Policy 13.4** Encourage long-term sustainability and maintenance of landscaped areas.

**Policy 13.4B** Habitat that is required to be protected, restored, or created as mitigation for a project's impacts shall be monitored and maintained in accord with a County-approved Habitat Management Plan.

**Objective 13.2** Minimize impacts to corridors to ensure movement of wildlife.

**Objective 13.5** Support, where feasible, the continued diversity and sustain ability of the habitat resource through restoration and protection.

**Objective 13.7** Identify and preserve heritage and landmark trees and groves where appropriate.

**Policy 13.9** Development in the vicinity of significant oak groves of all oak species shall be designed and sited to maximize the long-term preservation of the trees and the integrity of their natural setting. The County shall adopt a regulation to protect native heritage oak trees and significant oak groves. All native oak tree species with a trunk diameter of 36" or greater shall be protected.

**Objective 13.8** Minimize removal or disturbance of low elevation oak habitat.

### **Placer County General Plan**

**Goal 6.C** To protect, restore, and enhance habitats that support fish and wildlife species so as to maintain populations at viable levels.

**Policy 6.C.1** The County shall identify and protect significant ecological resource areas and other unique wildlife habitats critical to protecting and sustaining wildlife populations.

**Policy 6.C.2** The County shall require development in areas known to have particular value for wildlife to be carefully planned and, where possible, located so that the reasonable value of the habitat for wildlife is maintained.

**Policy 6.C.6** The County shall support preservation of the habitats of rare, threatened, endangered, and/or other special status species. Federal and state agencies, as well as other resource conservation organizations, shall be encouraged to acquire and manage endangered species' habitats.

**Policy 6.C.7** The County shall support the maintenance of suitable habitats for all indigenous species of wildlife, without preference to game or non-game species, through maintenance of habitat diversity.

**Policy 6.C.9** The County shall require new private or public developments to preserve and enhance existing native riparian habitat unless public safety concerns require removal of habitat for flood control or other public purposes. In cases where new private or public development results in modification or destruction of riparian habitat for purposes of flood control, the

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developers shall be responsible for acquiring, restoring, and enhancing at least an equivalent amount of like habitat within or near the project area.

**Policy 6.C.11** Prior to approval of discretionary development permits involving parcels within a significant ecological resource area, the County shall require, as part of the environmental review process, a biotic resources evaluation of the sites by a wildlife biologist, the evaluation shall be based upon field reconnaissance performed at the appropriate time of year to determine the presence or absence of rare, threatened, or endangered species of plants or animals. Such evaluation will consider the potential for significant impact on these resources, and will identify feasible measures to mitigate such impacts or indicate why mitigation is not feasible. In approving any such discretionary development permit, the decision making body shall determine the feasibility of the identified mitigation measures. Significant ecological resource areas shall, at a minimum, include the following:

- a. Wetland areas including vernal pools.
- b. Stream environment zones.
- c. Any habitat for rare, threatened or endangered animals or plants.
- d. Critical deer winter ranges (winter and summer), migratory routes and fawning habitat.
- e. Large areas of non-fragmented natural habitat, including Blue Oak Woodlands, Valley Foothill Riparian, vernal pool habitat.
- f. Identifiable wildlife movement zones, including but not limited to, non-fragmented stream environment zones, avian and mammalian migratory routes, and known concentration areas of waterfowl within the Pacific Flyway.
- g. Important spawning areas for anadromous fish.

**Goal 6.D** To preserve and protect the valuable vegetation resources of Placer County.

**Policy 6.D.1** The County shall encourage landowners and developers to preserve the integrity of existing terrain and natural vegetation in visually-sensitive areas such as hillsides, ridges, and along important transportation corridors.

**Policy 6.D.2** The County shall require developers to use native and compatible non-native species, especially drought-resistant species, to the extent possible in fulfilling landscaping requirements imposed as conditions of discretionary permits or for project mitigation.

**Policy 6.D.3** The County shall support the preservation of outstanding areas of natural vegetation, including, but not limited to, oak woodlands, riparian areas, and vernal pools.

**Policy 6.D.4** The County shall ensure that landmark trees and major groves of native trees are preserved and protected. In order to maintain these areas in perpetuity, protected areas shall also include younger vegetation with suitable space for growth and reproduction.

**Policy 6.D.8** The County shall require that new development preserve natural woodlands to the maximum extent possible.

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**Policy 6.D.9** The County shall require that development on hillsides be limited to maintain valuable natural vegetation, especially forests and open grasslands, and to control erosion.

**Policy 6.D.10** The County shall encourage the planting of native trees, shrubs, and grasslands in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native wildlife, and ensure that a maximum number and variety of well-adapted plants are maintained.

**Goal 6.E** To preserve and enhance open space lands to maintain the natural resources of the County.

**Policy 6.E.1** The County shall support the preservation and enhancement of natural land forms, natural vegetation, and natural resources as open space to the maximum extent feasible. The County shall permanently protect, as open space, areas of natural resource value, including wetland preserves, riparian corridors, woodlands, and floodplains.

**Policy 6.E.2** The County shall require that new development be designed and constructed to preserve the following types of areas and features as open space to the maximum extent feasible:

- a. High erosion hazard areas;
- b. Scenic and trail corridors;
- c. Streams, streamside vegetation;
- d. Wetlands;
- e. Other significant stands of vegetation;
- f. Wildlife corridors; and
- g. Any areas of special ecological significance.

**Policy 6.E.3** The County shall support the maintenance of open space and natural areas that are interconnected and of sufficient size to protect biodiversity, accommodate wildlife movement, and sustain ecosystems.

### **3.4.3 Impact Analysis**

#### **Methodology**

A Stantec biologist reviewed existing information and walked the Combie Canal Project site on May 7, 2010, December 22, 2010, and February 5, 2011. The surveys were conducted concurrently with cultural resource surveys and the area surveyed is depicted in Figure 3-3 in the Cultural Resource Survey Section below. Robertson-Bryan, Inc (RBI) biologists also conducted a reconnaissance-level field survey/habitat assessment at the Project site on May 29 and July 23, 2009 to gather information to support this biological resources analysis. During the field surveys, the survey area (as defined below) was walked by the biological team. All species observed during the field survey were recorded in the field notes. A list of species observed during the field surveys is found in the Biological Resource Survey Report written by RBI.

The following information was used to identify potential sensitive biological resources in the Project region:



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- California Department of Fish and Game's (DFG) California Natural Diversity Database (CNDDDB) (2010) records search of the Standard and Tuolumne City 7.5-minute U.S. Geological Survey (USGS) quadrangle and surrounding areas;
- The California Native Plant Society's (CNPS') 2010 online *Inventory of Rare and Endangered Plants of California* for the Standard and Lake Combie 7.5 minute quad and surrounding areas;
- The U.S. Fish and Wildlife Service (USFWS) list of endangered, threatened, and proposed species for Nevada County;
- Previously prepared environmental documents in the area including the *Biological Resource Survey Report: Combie North Phase I Project*;
- NID Combie Reservoir Water Supply and Maintenance Project. Preliminary Biological Evaluation for CEQA initial study (2009);
- NID Combie North Powerhouse Replacement Project IS/MND (2008);
- NID Regional Water Supply Project – Technical Memorandum Environmental Constraints Analysis (2009);
- NID Combie South Pipeline Project Alternatives Evaluation Report (2008);
- The Nevada County General Plan (Nevada County, 1996);
- Nevada County Natural Resources Report (Nevada County 2002);
- The Placer County General Plan (Placer County, 1994);
- United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2009);
- Unpublished and published literature; and,
- Stantec file information.

**Biological Communities***Blue Oak–Foothill Pine Habitat*

The blue-oak foothill pine habitat occurs between 500 and 3,000 feet in elevation in the Sierra Nevada foothills and is typically composed of a diverse mix of hardwoods, conifers, and shrubs. In the Proposed Project area, this habitat is dominated by blue oak (*Quercus douglasii*), California black oak (*Quercus kelloggii*), interior live oak (*Quercus wislizenii*), foothill pine (*Pinus sabiniana*), and California buckeye (*Aesculus californica*) with scattered ponderosa pine (*Pinus ponderosa*). Common shrub species found in the understory include California coffeeberry (*Rhamnus californica*), deerbrush (*Ceanothus integerrimus*), and poison oak (*Toxicodendron diversilobum*). The herbaceous layer includes annual grasses, rose clover (*Trifolium hirtum*), winter vetch (*Vicia villosa*), and sky lupine (*Lupinus nanus*).

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The existing canal has small leaks in several locations where wetland plants have become established immediately adjacent to the canal. Vegetation in these areas include narrowleaf cattail (*Typha angustifolia*), fragile sheath sedge (*Carex fracta*), small rush (*Juncus effusus var. exiguous*) and spikerush (*Eleocharis sp.*).

The Project also runs above and adjacent to but not in the Bear River riparian habitat dominated by cottonwood, alder, willows, and Himalayan blackberry.

**Special-Status Species**

For the purpose of this IS/MND, special-status species are defined as:

- Species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (ESA) (50 Code of Federal Regulations [CFR] 17.12 for listed plants, 50 CFR 17.11 for listed animals, and various notices in the Federal Register [FR] for proposed species)
- Species that are candidates for possible future listing as threatened or endangered under ESA (67 FR 40657, June 13, 2002)
- Species that are listed or proposed for listing by California as threatened or endangered under the California Endangered Species Act (CESA) (14 CCR 670.5)
- Plants listed as rare under the California Native Plant Protection Act of 1977 (California Fish and Game Code 1900 et seq.)
- Plants considered by CNPS to be “rare, threatened, or endangered in California and elsewhere” (CNPS List 1B species)
- Species that meet the definitions of “rare” or “endangered” under State CEQA *Guidelines* Section 15380
- Animal species of special concern to DFG
- Animals fully protected in California (California Fish and Game Code Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians])

A list of special-status plant and animal species that have the potential to occur within the Project region was compiled based on data in the California Natural Diversity Data Base (CNDDDB) (CDFG, 2011), California Native Plant Society (CNPS) online inventory, and USFWS List of Federal Endangered and Threatened Species that may be affected by the proposed Project in the USGS 7.5' Lake Combie quadrangle and 8 quads surrounding the Lake Combie quad (i.e. the Rough and Ready, Grass Valley, Chicago Park, Wolf, Colfax, Gold Hill, Auburn, and Greenwood quadrangles).

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Based on Project maps, aerial photography, and biological surveys, most species identified in databases for the region were eliminated, including all sensitive habitats, from further consideration for one or more of the following reasons:

- Lack of suitable habitat in the Project study area
- Outside of species range

Conclusions regarding habitat suitability and species occurrence are based on the background research listed above (existing literature and databases) and the biological surveys conducted by Stantec Wildlife Biologists and RBI Biologists.

**Table 3-4.1** identifies the special-status plant and wildlife species that are known to occur or have the potential to occur within 5 miles of the Project site. The CNDDDB registrations are vague about the actual locations of species. For each of these species, which are identified in **Table 3-4.1** the “potential for occurrence” at the Project site was evaluated as follows:

**Very Low to Nil:** The Project site and/or immediate area do not support suitable habitat for a particular species. Project is outside the species known range.

**Low Potential:** Project site and/or immediate area only provide limited habitat for a particular species. In addition, the known range for a particular species may be outside the immediate Project area.

**Moderate Potential:** The Project site and/or immediate area provide suitable habitat for a particular species, and habitat for the species may be impacted.

**High Potential:** The Project site and/or immediate area provide ideal habitat conditions for a particular species and/or known populations occur in the immediate area and within the potential area of impact.

A description of the special-status plants and wildlife species identified during the pre-survey screening as known to occur or having a potential to occur within the Project region is provided below.

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Table 3-4.1 Special-Status Plant and Wildlife Species That Have Potential to Occur in the Project Area (CNDDDB/USFWS/CNPS, 2011)

Common Name Scientific Name	Legal Status <sup>a</sup>			Geographic Distribution/ Floristic Province	Preferred Habitat	Identification Period	Level of Potential for Occurrence Within Project Sites
	Federal	State	CNPS				
<b>Plants</b>							
Jepson's onion <i>Allium jepsonii</i>	-	-	1B	450-1130 meters	Cismontane woodland, lower montane coniferous forest	April-August	<b>Moderate.</b> Not recorded on site, but habitat exists. (CNDDDB, 2011).
Galile's cave harvestman <i>Banksula galilei</i>	-	-	-		Lime rock caves		<b>Very Low to Nil.</b> No habitat exists. Date last seen 1966 (CNDDDB, 2011).
Stebbin's morning-glory <i>Calystegia stebbinisii</i>	E	E	1B	180-725 meters	Chapparal, cismontane woodland	April-July	<b>Very Low to Nil.</b> Known from fewer than 20 occurrences. Very rare. (CNDDDB, 2011)
Red Hills soaproot <i>Chlorogalum grandiflorum</i>	-	-	1b	245-1240 meters	Chapparal, cismontane woodland, lower montane coniferous forest	May-June	<b>Moderate.</b> Not recorded on site, but habitat exists. (CNDDDB, 2011).
Brandegee's clarkia <i>Clarkia biloba spp. Brandegeeae</i>	-	-	1B	295-885 meters	Chapparal; Cisomontane Woodland	May-July	<b>High.</b> Last reported near Bear River in Nevada County (overlapping Project site) (CNDDDB, 2011).
Pine Hill flannelbush <i>Fremontodendron decumbens</i>	E	SR	1B	425-760 meters	Chaparral, cismontane woodland, and lower montane coniferous forest, on rocky gabbroic or serpentinite soils	April-July	<b>Very Low to Nil.</b> Unlikely to occur, due to lack of suitable soils. The closest known occurrence is 10 miles north of the Project area (CNDDDB, 2011)
Butte County fritillary <i>Fritillaria eastwoodiae</i>	-	-	3	40-1500 meters	Chapparal, cismontane woodland, lower montane coniferous forest	April-June	<b>Moderate.</b> Not recorded on site, but habitat exists (CNDDDB, 2011).
Follett's monardella <i>Monardella folletti</i>	-	-	1B	530-2,100 meters	Lower montane coniferous forests on rocky, serpentine soils	June-September	<b>Very Low to Nil.</b> Unlikely to occur due to lack of suitable soils.



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Common Name Scientific Name	Legal Status <sup>a</sup>			Geographic Distribution/ Floristic Province	Preferred Habitat	Identification Period	Level of Potential for Occurrence Within Project Sites
	Federal	State	CNPS				
Sierra blue grass <i>Poa sierrae</i>	-	-	1B	365-1160 meters	Lower montane coniferous forest; Shady, moist, rocky slopes, often in canyons	June-September	<b>Very Low to Nil.</b> No suitable habitat.
Brownish beaked-rush <i>Rhynchospora capitellata</i>	-	-	1B	455-2000 meters	Lower montane coniferous forest, meadows & seeps, marshes & swamps, upper montane coniferous forest	July-August	<b>Moderate.</b> Not recorded on site, but habitat exists. (CNDDDB, 2011)
Scadden Flat Checkerbloom <i>Sidalcea stipularis</i>	-	E	1B	730-774 meters	Marshes and swamps, wet montane marshes fed by springs.	July-August	<b>Very Low to Nil.</b> No suitable habitat; Project location outside of species known elevation range.
Oval-leaved viburnum <i>Viburnum ellipticum</i>	-	-	2	215-1400 meters	Chapparal, cismontane woodland, lower montane coniferous forest	March-June	<b>Moderate.</b> Not recorded on site, but habitat exists (CNDDDB, 2011).
<b>Invertebrates</b>							
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	T	-	n/a	Throughout California west of the Sierra Nevada.	Vernal pools		<b>Very Low to Nil.</b> No vernal pools present within Project area.
Valley elderberry longhorn beetle <i>Desmocerus californicus</i>	T	-	n/a	California central valley and foothills below 1,000 meters elevation	Elderberry shrubs		<b>Low.</b> Potentially occurring in the Project area. No elderberry shrubs detected. No records for Nevada County (CDFG 2009)
Vernal pool tadpole shrimp <i>Lepidurus packardii</i>	E	-	n/a	California central valley	Vernal pools containing clear to highly turbid water		<b>Very Low to Nil.</b> No suitable habitat.
<b>Fish</b>							
Delta smelt <i>Hypomesus transpacificus</i>	T	T	n/a	Contra Costa, Sacramento, San Joaquin, Solano, Yolo counties.	Estuaries, river channels, tidally influenced backwaters.		<b>Very Low to Nil.</b> Outside species current range.

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Common Name Scientific Name	Legal Status <sup>a</sup>			Geographic Distribution/ Floristic Province	Preferred Habitat	Identification Period	Level of Potential for Occurrence Within Project Sites
	Federal	State	CNPS				
Central Valley Steelhead <i>Oncorhynchus mykiss</i>	T	FP	n/a		Streams with deep, low-velocity pools tolerant of a wide variety of temperatures.		<b>Very Low to Nil.</b> Outside of species current range.
Central Valley spring run Chinook salmon <i>Oncorhynchus tshawytscha</i>	T	E	n/a		Headwater streams of large river systems. Migrate to estuaries.		<b>Very Low to Nil.</b> Outside of species current range.
<b>Amphibians</b>							
Foothill yellow-legged frog <i>Rana boylei</i>	-	SSC	n/a	Found from near sea levels to 1940 meters in California, mostly distributed throughout the foothill portions of most drainages from the Oregon border to the San Gabriel River.	Associated with shallow, flowing water in small to moderate sized streams with some cobble-sized substrate.	Year-round depending on life stage	<b>Low.</b> No suitable habitat because the Project is located on a bench carved out of a cliff well above the river. Bear River provides suitable habitat. Nearest known occurrence approximately 5 miles northeast in Bear River (CNDDDB 2011).
Northwestern Pond Turtle <i>Actinemys marmorata marmorata</i>	-	SSC	n/a	Perennial wetlands; slow moving creeks and ponds at least 1.6 feet deep with overhanging vegetation and rock outcrops.	Associated with basking sites and suitable upland habitat (sandy banks or grassy open fields) up to 0.5 km from water for egg laying.	Year-round depending on life stage	<b>Low.</b> No suitable habitat. Nearest known occurrence approximately 3 miles north in Wolf Creek (CNDDDB 2011). This species could also occur in the Bear River, Lake Combie, and nearby stock ponds. The Project site is carved out of a steep cliff and is not considered suitable habitat.
California red-legged frog <i>Rana draytonii</i>	T	-	n/a	Coastal Range of California, foothill range of Sierra Nevada mtns.	Lowlands & foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation	Year-round	<b>Low.</b> Within range, but no suitable habitat at Project site.

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Common Name Scientific Name	Legal Status <sup>a</sup>			Geographic Distribution/ Floristic Province	Preferred Habitat	Identification Period	Level of Potential for Occurrence Within Project Sites
	Federal	State	CNPS				
<b>Mammals</b>							
Pacific fisher <i>Martes pennanti (pacifica) DPS</i>	C	SSC	n/a	Coastal mountains from Del Norte County to Sonoma Counties, east through the Cascades to Lassen County, and south in the Sierra Nevada to Kern County	Late successional coniferous forests and montane riparian habitats with a high percentage of canopy cover. Uses cavities, snags, and logs for cover and denning.	Year-round	<b>Low.</b> Project site lacks suitable habitat for this species. There is limited late successional forest and riparian habitat with a high percentage of canopy cover in the vicinity of the Project.
<b>Birds</b>							
General Nesting Raptors and other migratory birds	MBTA Protected	-	n/a	Migrants	Tree, shrub, and ground nesting	March 1 – August 15	<b>Moderate to High:</b> Project site is surrounded by trees (nesting habitat) and is located above a river, near a lake (potential foraging areas).
American peregrine falcon <i>Falco peregrinus anatum</i>	D (delisted on 8/20/99)	E FP (nesting)	n/a		Breeds in woodlands, forests, coastal habitats and riparian areas near wetlands, lakes, rivers, or other water on high cliffs, banks, dunes, or mounds.	March - September	<b>Moderate:</b> Potential nesting habitat in surrounding trees. Not observed during field surveys.
Bald eagle <i>Haliaeetus leucocephalus</i>	D (delisted on 6/28/2007)	E FP	n/a	Year-round resident in ice-free regions of California.	Foraging areas include regulated and unregulated rivers, reservoirs, lakes, estuaries, and coastal marine ecosystems. Majority of bald eagles in California breed near reservoirs and nests are usually located within one mile of foraging habitat.	Year round	<b>Moderate to High:</b> Project site is surrounded by trees (nesting habitat) and is located above a river, near a lake (potential foraging areas).

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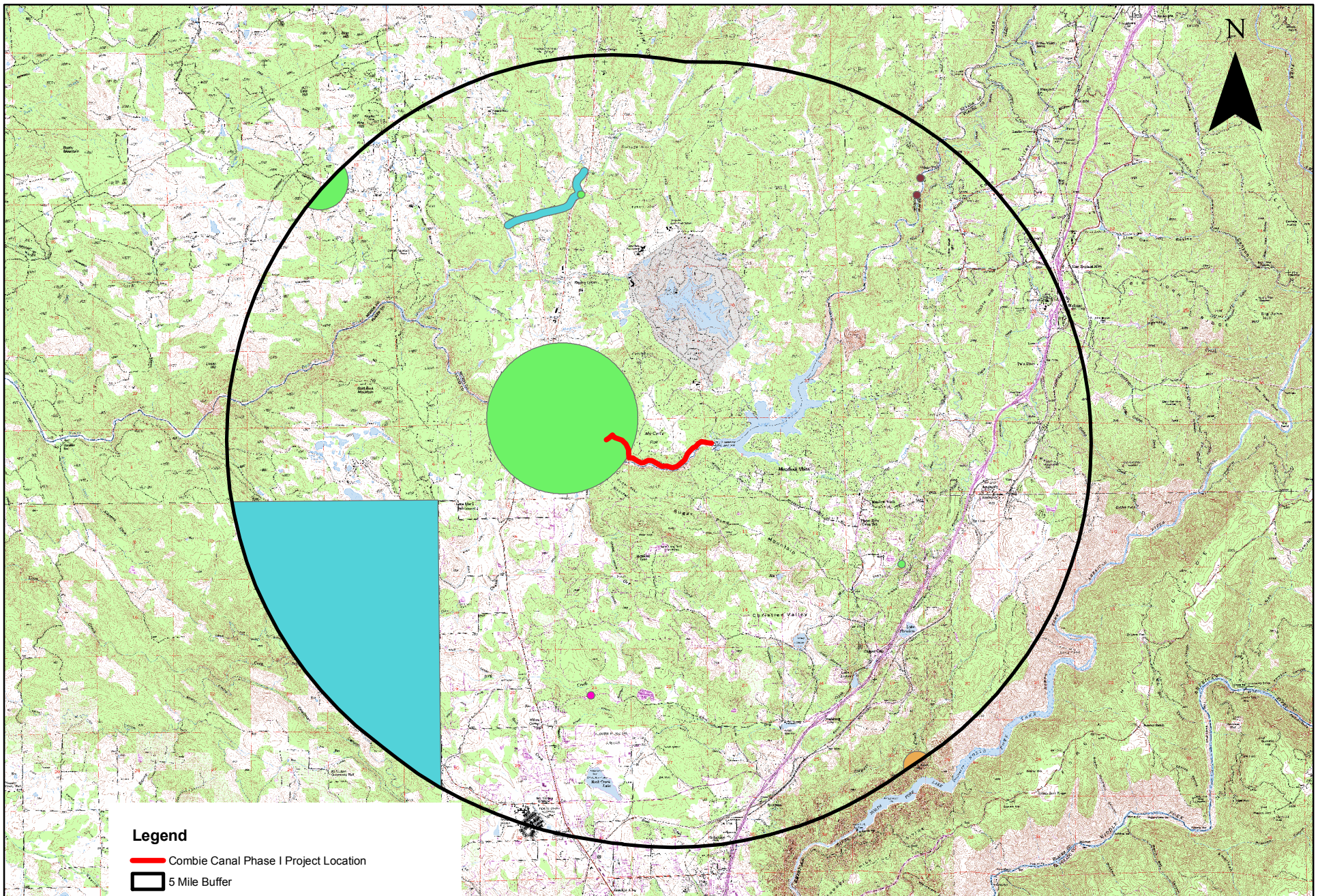
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Common Name <i>Scientific Name</i>	Legal Status <sup>a</sup>			Geographic Distribution/ Floristic Province	Preferred Habitat	Identification Period	Level of Potential for Occurrence Within Project Sites
	Federal	State	CNPS				
California black rail <i>Laterallus jamaicensis</i> <i>Coturniculus</i>	—	T FP	n/a		Occurs in salt marshes bordering larger bays and freshwater and brackish marshes that are at least one acre in size and support at least one inch of water. Also found in the foothills in blackberry brambles along earthen canals.	Feb - Sept	<b>Low.</b> No suitable habitat because the Project is located on a bench carved out of a cliff well above the river. The existing canal is square and concrete. The Bear River provides suitable habitat.
Yellow warbler <i>Dendroica petechia</i> <i>brewsteri</i>	—	SSC (nesting)	n/a	From coastal and desert lowlands up to 8,000 feet in the Sierra Nevada.	Breeds in riparian woodlands Also breeds in montane chaparral, open ponderosa pine, and mixed conifer habitats with substantial amounts of brush.	March - September	<b>Low.</b> Potentially occurring along the Bear River riparian habitat adjacent to the Project area. Not observed during field surveys.
<p><b>Federal</b></p> <ul style="list-style-type: none"> <li>E = listed as endangered under the federal Endangered Species Act.</li> <li>T = listed as threatened under the federal Endangered Species Act.</li> <li>D = delisted under the federal Endangered Species Act</li> <li>PD = proposed for delisting</li> <li>C = candidate to become a proposed species</li> <li>MB = Migratory Bird Treaty Act</li> <li>— = no listing.</li> </ul> <p><b>California Native Plant Society (CNPS)</b></p> <ul style="list-style-type: none"> <li>1B = List 1B species: rare, threatened, or endangered in California and elsewhere.</li> <li>2 = List 2 species: rare, threatened, or endangered in California but more common elsewhere.</li> <li>3 = List 3 species: plants about which more information is needed to determine their status.</li> <li>4 = List 4 species: plants of limited distribution.</li> </ul>					<p><b>State</b></p> <ul style="list-style-type: none"> <li>E = listed as endangered under the California Endangered Species Act.</li> <li>T = listed as threatened under the California Endangered Species Act.</li> <li>R = listed as rare under the California Native Plant Protection Act. This category is no longer used for newly listed plants, but some plants previously listed as rare retain this designation.</li> <li>CE = candidate species for listing as endangered under the California Endangered Species Act</li> <li>FP = fully protected species</li> <li>SSC = species of special concern in California</li> <li>PR = Protected Raptor Species</li> <li>— = no listing.</li> </ul>		





**Figure 3-2**  
Special-status Species Known to Occur within Five Miles of the Combie Phase 1 (CNDDDB, 2011)



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**Special-Status Plants**

Based on the elevation, habitats, and soils present onsite, five special-status plant species were identified as potentially occurring in the Project area (Special-status table 3.4.1). These include Jepson's onion (*Allium jepsonii*), Red Hills soaproot (*Chlorogalum grandiflorum*), Brandegee's clarkia (*Clarkia biloba* ssp. *Brandegeeae*), brownish beaked-rush (*Rhynchospora capitellata*), and oval-leaved viburnum (*Viburnum ellipticum*). Of these five species, Brandegee's clarkia is from one CNDDDB record from 1916 which includes the proposed Project area. The record is mapped as a "best guess" based on non-specific geographical information provided to CNDDDB. However, no special-status plants, including Brandegee's clarkia, were detected during special-status plant surveys conducted by RBI biologists. In addition, no heritage or landmark oaks were identified.

**Jepson's onion (*Allium jepsonii*)**

Jepson's onion is a bulbiferous herb in the onion family (Alliaceae). The Jepson's onion grows to a height between about 20 and 40 centimeters from one or two oval-shaped bulbs. There is a single cylindrical leaf which is about the same length as the stem. The inflorescence holds 20 to 60 small flowers, each under a centimeter long with pink-veined white tepals with curling tips. Jepson's onion grows in chaparral, cismontane woodland, lower montane coniferous forest in serpentine or volcanic soils. No Jepson's onion were observed during the botanical surveys (RBI 2008, Stantec 2011).

**Red Hills soaproot**

Red Hills soaproot is a bulbiferous herb in the lily family (Liliaceae). It has wavy basal leaves that are about 4 to 12 mm wide. The linear flower petals are white with a purplish mid vein. They open in the evening and close by the next morning. Red Hills soap root grows on gabbroic, serpentine, and other soils in chaparral, cismontane woodland, and lower montane coniferous forest habitats. No Red Hills soaproot were observed during the field visits to the Project site and the Project site does not provide suitable habitat for Red Hills soaproot.

**Brandegee's clarkia**

Brandegee's clarkia is an annual herb in the evening primrose family (Onagraceae). Its stems grow erect, measuring less than a meter tall. The flowers have lavender petals and the leaves are lanceolate shaped. Brandegee's clarkia is often found in roadcuts in chaparral, cismontane woodland, and lower montane coniferous forest habitats. While the Project site provides suitable habitat for Brandegee's clarkia, no Brandegee's clarkia were observed during the botanical surveys (RBI 2008, Stantec 2011).

**Brownish beaked-rush**

Brownish beaked-rush is a perennial herb in the carex family (Cyperaceae). Brownish beaked-rush has dark brown inflorescences and reddish brown, smooth fruit. Brownish beaked-rush is found in wet habitats such as marshes and swamps, meadows and seeps, and upper and lower montane coniferous forest habitats. Brownish beaked-rush was not observed during the field visits to the Project site, and no focused surveys for this species have been conducted for the Project site. However, the Project site may provide suitable habitat for brownish beaked-rush.

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**Oval-leaved viburnum (*Viburnum ellipticum*)**

Oval-leaved viburnum is a shrub with numerous erect branches from 1-3 meters high. The herbage of the petioles is covered with spreading coarse hairs and often with short raised glands. The leaves are palmately veined from the base with 3-5 main veins. The margins are coarsely and bluntly toothed but not lobed. This deciduous shrub occurs in chaparral, cismontane woodland, and lower montane coniferous forest. Oval-leaved viburnum was not observed during the botanical surveys (RBI 2008, Stantec 2011).

**Special-Status Wildlife**

Species accounts for special status wildlife with a low to moderate potential (or higher) to occur in the Project area are provided below. In addition, California red-legged frog is also analyzed in detail below due to its high profile in the Sierra foothills and the Districts aim to be protective of this species. There is a moderate potential for foothill-yellow legged frog or northwestern pond turtle to occur in aquatic habitats adjacent to the Project area and therefore to occasionally wander into the Project area. VELB (*Desmocercus californicus dimorphus*, FT, FPD); California black rail (*Laterallus jamaicensis contorniculatus*, ST, CFP) could occur along the banks of the Bear River; however, no habitat was encountered in the Project area. Peregrine falcon, Cooper's hawk, sharp-shinned hawk, or other common and protected migratory raptors and passerines could also nest in trees and shrubs in and near the Project area. Refer to Figure 3-2 for a map of special-status wildlife species known to occur within 5 miles of the proposed Project area.

**Valley Elderberry Longhorn Beetle**

VELB is completely dependent on its host plant, elderberry (*Sambucus* spp.) and is associated with various species of elderberry below 3,000 feet in elevation. VELB generally occur along waterways and in floodplains that support remnant stands of riparian vegetation. Both larvae and adult VELB feed on elderberries. Larvae feed internally on the pith of the trunk and larger branches, while adult beetles appear to feed externally on elderberry flowers and foliage. Prior to metamorphosing into the adult life stage, VELB larvae chew an exit hole in the elderberry trunk, through which the adult beetle later exits the plant.

The VELB range extends throughout California's Central Valley and associated foothills. There are three critical habitat areas—all of which are located outside the Proposed Project area—along the American River in Sacramento County. There are no known occurrences of VELB within the Proposed Project area. The nearest VELB occurrence is in El Dorado County. No elderberry bushes were encountered in the Project area during biological surveys and therefore, there is not appropriate habitat (elderberry shrubs). Valley Elderberry Longhorn Beetle is not likely to occur in the proposed Project area.

**California Red-Legged Frog (CRLF)**

CRLF occurs in aquatic areas with dense, shrubby, or emergent riparian vegetation and a permanent source of deep still or slow moving water. CRLF prefer relatively deep (between 0.5 and 1.5 meters in depth) (RBI, 2008) still or slow-moving water (Hayes and Jennings 1989, Jennings and Hayes 1994). At seasonal spawning habitat, water must remain long enough in most years to allow for metamorphosis of most of the tadpoles (generally between July and September) (USFWS 2006). Most populations of CRLF are found in habitats that are free of introduced predators, on one

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or more life stage, which are believed to include bullfrogs (*Lithobates catesbeianus*), non-native crayfish, and various fishes including bass, catfish, and mosquito fish (USFWS 2002). Upland dispersal habitat includes areas within one mile of aquatic breeding habitat with no impassable dispersal barriers. Upland habitats are used primarily by CRLF during the non-breeding season for dispersal and/or aestivation.

The historic range of CRLF includes aquatic, riparian, and upland habitats throughout much of California and northern Baja California. There are no known occurrences of CRLF in the proposed Project area or immediate surrounding vicinity, and no recorded sightings. The proposed Project area is not within designated critical habitat. The nearest Critical Habitat Unit (PLA-1) as well as the nearest CRLF record is 17 miles east of the Proposed Project area.

Based on habitat requirements, as determined by the USFWS (USFWS 2005), suitable breeding habitat is not present in the proposed Project vicinity at Lake Combie near the dam due to the presence of predators, in the Bear River near the Project site due to the rapid flows into late spring (even over the China Dam, unless it is a very dry year), and at the WTP storage pond due to the lack of emergent vegetation. The actual Project site does not have any slow moving waters with emergent vegetation that constitutes suitable CRLF breeding habitat. A formal USFWS CRLF site assessment for the Proposed Project was not completed. Suitable dispersal habitat for CRLF is present in any foothill area located within one mile of potential breeding ponds. Therefore, although unlikely on the cliff bench and in steep upland habitat, in the absence of protocol level surveys of all stock ponds within one mile of the Project site, it is impossible to rule out the potential for occurrence of CRLF during the non-breeding season/dispersal season (July-February). No California Red-legged frogs were observed during the biological surveys (Stantec 2011).

**Foothill yellow-legged frog**

Foothill yellow-legged frog (FYLF) inhabit shallow, flowing water in small to moderate sized streams with cobble sized substrate. They require some cobble-sized substrate for egg laying. They typically stay within a few feet of aquatic habitat. The FYLF's core habitat is perennial streams in riparian woodland/scrub, grassland, oak savanna, and oak woodland land cover types. The majority of frogs occur at elevations below 2,500 ft. In general, FYLFs appear to prefer low to moderate gradient (0 to 4%) streams, particularly for breeding; however, juvenile and adult frogs may also utilize moderate to steep gradient (4 to  $\geq 10\%$ ) creeks during the summer and early fall (personal observations).

Mating and egg-laying occurs in water from mid March until June after streams have slowed from winter runoff. Breeding areas are typically located in shallow edgewater areas along low gradient cobble and small boulder dominated point or lateral bars, in side channels, pool tail-outs, and side pools along river margins. The species deposits its egg masses on the downstream side of cobbles and boulders over which a relatively thin, gentle flow of water exists. Tadpoles transform in about 15 weeks, from July to September.

The nearest known occurrence of FYLF is approximately four miles upstream above Lake Combie. Therefore, there is a potential for FYLF to occur in the Bear River down the hill from the Project area. No foothill yellow-legged frogs were observed during the biological surveys (Stantec 2011).

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**Northwestern Pond Turtle**

The northwestern pond turtle occurs in a wide variety of permanent and ephemeral aquatic habitats, including ponds, lakes, streams, and irrigation ditches, with emergent vegetation and rock outcrops or floating debris for basking. They may also be found nesting or overwintering in adjacent upland habitats usually within 300 feet of aquatic habitats. Northwestern pond turtle nest on land between May and July usually within 150 feet of water in dry clay, loam, or silt soils in open areas with sparse, low vegetation (annual grasses and herbs) and with a southeast, south, or southwest aspect. Although eggs hatch by September, hatchlings overwinter in the nest site and migrate to aquatic sites in March and April. The range for northwestern pond turtle extends from the western Washington south to central California. In the Sierra Nevada, it historically occurred in most of the major drainages along the western slope.

There are no known occurrences of northwestern pond turtle in the proposed Project area or immediate surrounding vicinity. The nearest northwestern pond turtle record is in approximately three miles southwest of the Project site. Lake Combie and the Bear River (near China Dam during low flow years) does contain suitable habitat for WPT. The Project area that is located within 150 feet of the potential WPT habitat is upland, extremely steep and generally not considered open areas with sparse, low vegetation (annual grasses and herbs) suitable for overwintering. Suitable aquatic habitat for northwestern pond turtle is not present in the canal because it is fast moving and lacks access and basking habitat. The WTP storage reservoir located upland of the canal is not considered suitable habitat because it lacks suitable basking habitat. No northwestern pond turtles were observed during the biological surveys (Stantec 2011).

**California Black Rail**

California black rail occurs in salt marshes bordering larger bays and freshwater and brackish marshes at least 1 acre in size and supporting at least 1 inch of water. Vegetation composition is dependent on habitat type and includes *Scirpus* spp., *Juncus* spp., *Cyperaceae*, *Typha* spp., *Grindelia* spp., and *Poaceae*. The California black rail occurs in transition areas between wet and dry habitats, excluding deep/open water. Nesting habitat includes areas concealed in dense vegetation. The nest is a deep, loose cup formed at ground level or elevated several inches. The California black rail is extremely private and a rarely seen bird that tends to avoid areas of human activity.

The majority of California black rails are found in the tidal salt marshes of the northern San Francisco Bay region, primarily in San Pablo and Suisun Bays. Smaller populations occur in San Francisco Bay, Marin County, as well as freshwater marshes in the foothills of the Sierra Nevada. There are no known occurrences of California black rail in the proposed Project area and no recorded sightings. There are records for California black rail in Nevada County at a sensitive location near Grass Valley, as well as at Spenceville Wildlife Area, which is managed by CDFG.

The rail could occur along earthen canals in blackberry brambles (pers. Com., Tecklin, 2009). Suitable aquatic habitat for black rail not present along the Combie Canal because it is concrete, square, and does not have vegetation. If black rail occurs along the Bear River, it likely would not wonder into the exposed Project area which lacks the dense vegetation suitable for this species.

Therefore, black rail is not likely to occur in the Project area and no black rails were observed during the biological surveys (Stantec 2011).

### **Yellow Warbler**

The yellow warbler breeds in riparian vegetation along streams or in wet meadows, especially in willows, cottonwoods, and various riparian shrubs. It may occasionally use shrub lands and understory trees in mixed conifer forests. The yellow warbler is fairly abundant in the Sierra Nevada.

Suitable nesting and/or foraging habitat (riparian vegetation) for yellow warbler is present along the Bear River. Therefore, yellow warbler could potentially occur in areas adjacent to the proposed Project. No nesting yellow warblers were observed during biological surveys (Stantec 2011).

### **Peregrine Falcon**

The peregrine falcon breeds in woodlands, forests, coastal habitats, and riparian areas near wetlands, lakes, rivers, or other water on high cliffs, banks, dunes, or mounds. Its nest is a scrape on a depression or ledge in an open area, on human-made structures, and occasionally in a tree or snag cavities or old nests of other raptors. Riparian areas and coastal and inland wetlands are important habitats year round, especially in non-breeding seasons. It feeds on a variety of birds and occasionally takes mammals, insects, and fish.

The peregrine falcon is an uncommon breeding resident and is uncommon as a migrant in California, with active nesting areas along the coast north of Santa Barbara, in the Sierra Nevada, and in other mountains of northern California. Migrants occur along the coast and in the western Sierra Nevada in spring and fall.

There are high cliffs appropriate for peregrine falcon nesting habitat in the adjacent to the area. Therefore, although rare the peregrine falcon is could nest in the area. Suitable foraging habitat for peregrine falcon is present throughout the area adjacent to the Project area in blue oak-foothill pine woodland. Therefore, peregrine falcon could potentially occur in the Proposed Project area, however, no peregrine falcons were observed during the biological surveys (Stantec 2011).

### **Other Migratory Bird Treaty Act (MBTA) Bird Species**

In addition to the species listed above, the proposed Project area may represent potential habitat for raptors or other bird species protected under the MBTA, including ground-nesting species such as California quail, and nesting waterfowl such as Canada goose (*Branta canadensis*) and wood duck (*Aix sponsa*).

The following discussion evaluates the potential impacts to biological resources from the proposed Project.



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Table 3-4.2

CEQA Checklist for Assessing Project-Specific Potential Biological Resources Impacts

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

**a) Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

**Finding: Less than significant with mitigation incorporated**

**Impact BIO-01: Potential Disturbance of Protected Botanical Species**

There is a moderate potential for Jepson's onion (*Allium jepsonii*), Red Hills soaproot (*Chlorogalum grandiflorum*), brownish beaked-rush (*Rhynchospora capitellata*), and oval-leaved viburnum (*Viburnum ellipticum*) to occur at the Project site. The habitat in the Project area is likely too disturbed from maintenance activities, development, and human activity to support special-status plants. Impacts to this species would be unlikely, because the Project would be limited to existing disturbed areas (i.e., dirt and gravel roads and clear areas) and the aforementioned plants don't

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typically occupy those areas. However, Brandegees' clarkia (*Clarkia biloba ssp. Brandegeae*) often grows along road cuts and hill sides. Botanical surveys were conducted in the appropriate bloom periods and no special-status plants were observed in or adjacent to the Project area (RBI, 2009). Therefore, the proposed Project is expected to have a less than significant impact on botanical species and no mitigation is required.

Although protocol botanical surveys resulted in negative findings for protected species, to be additionally protective of the environment, NID has incorporated the following BMPs into the Project design. Should a special-status species be inadvertently encountered during construction by the environmentally trained foreman (MM BIO-01 below) NID will implement the following BMP measures:

1. Route construction activity away from sensitive plants to the degree feasible in keeping with Project objectives.
2. Relocate plants to suitable habitat outside of the Project area, whether within applicant-owned land or off-site.
3. Monitor affected populations or relocated populations to document potential Project-related impacts.
4. Restore or enhance occupied habitat on-site or at another location; and/or
5. Protect occupied habitat for the species on-site or at another regional location.

**Impact BIO-02: Potential Disturbance of Protected Amphibian and Aquatic Reptile Species and their Habitat**

There is a moderate potential for foothill-yellow legged frog or northwestern pond turtle to occur in aquatic habitats adjacent to the Project area. FYLF are not known to stray far from their aquatic habitat and the Project work will all occur at distances greater than 75 feet from the Bear River and 300 feet from Lake Combie. Therefore FYLF would occasionally wander into the Project area. There is no habitat for either of these species within the area directly affected by the Project. The lack of recorded sightings does not negate the potential for these species to cross the Project site. Therefore, with the implementation of avoidance and exclusion measures BIO-01 and 02, the potential impact to these species is considered less than significant. Although the Project site does not have potential CRLF habitat, the avoidance measures listed below are based on previous NID CRLF Section 7 consultations and are therefore also protective of this species, should it migrate through the area from one breeding pond to another in the non-breeding/wet season.

**Mitigation Measure BIO-01: Environmental Awareness Training**

The name and credentials of a biologist qualified<sup>1</sup> to act as a Project biologist/construction monitor (i.e. Service Approved Biological Monitor- SBM) will be submitted to the USFWS for approval at least 15 days prior to the commencement of work. Note: This is only necessary if the

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<sup>1</sup> Any person capturing or handling California red-legged frog shall be a qualified, USFWS-approved biologist. A *qualified biologist*, as the term is used in this section, means any person who has completed at least four years of university training in wildlife biology or a related science and/or has demonstrated field experience in the identification and life history of the species being discussed.

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Project biologist has not been previously approved by the USFWS for work in the Sierra Nevada foothills. Environmental awareness training will be given to construction personnel by the SBM biologist to brief them on how to recognize special status species that could occur in the area including foothill yellow legged frog, California red-legged frog, western pond turtle, active nests, and Brandegees clarkia. Environmental training pamphlets will also be available onsite for use by environmentally trained foreman in training new personnel to the Project in the absence of the SBM. Construction personnel will also be informed that if special status species are encountered in the work area, construction will cease and the SBM will be notified for guidance before any construction activities are resumed. Depending the species-listing and persistence in the area, the SBM will notify the USFWS and/or CDFG for guidance.

**Mitigation Measure Implementation**

**Responsible Party:** NID will ensure that a qualified biologist conducts pre-construction awareness training.

**Timing:** One awareness training will be conducted prior to the initiation of construction.

**Monitoring and Reporting Program:** The training will be conducted by a qualified wildlife biologist and the training brochures will be kept on the construction site.

**Standards for Success:** Construction personnel be trained in the key characteristics for identifying and avoiding impacts to special status species. Special status species will not be disturbed during the Project construction activities.

**Mitigation Measure BIO-02: Exclusion fencing adjacent to actively flowing water or slow moving water with emergent vegetation within 100 feet of construction areas**

- A. Silt fencing will be installed in all areas where construction occurs within 100 feet of actively flowing water or slow moving water with emergent vegetation (i.e. the Bear River and the western corner of Lake Combie).
- B. No less than two weeks prior to the beginning of ground-disturbing activities, a qualified biologist shall survey disturbance areas for special status amphibians and aquatic reptiles. Daily visual clearance surveys shall also be conducted by the environmentally trained foreman during initial ground-disturbing activities (the first two weeks of construction). If any protected amphibian adults, tadpoles, or eggs are identified where habitat disturbance is proposed, work shall be halted and the SBM shall be contacted to determine appropriate actions, unless already stipulated by USFWS. If the USFWS and/or CDFG approves moving the frogs, the qualified biologist shall be allowed sufficient time to move the frogs from the work site before work activities resume. Only qualified and permitted biologists shall participate in the capturing, handling, and translocating of protected amphibians and aquatic reptiles.
- C. During work activities, trash that may attract predators will be properly contained, removed from the worksite, and disposed of regularly. Following construction, trash and construction debris will be removed from work areas.

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- D. Spoil sites (concrete wash areas) will be located so they do not drain directly into the Bear River or other drainages. If a spoil site drains into a water body, catch basins will be constructed to intercept sediment before it reaches the channels. Spoil sites will be graded to reduce the potential for erosion.
- E. Staging and storage areas for equipment, materials, fuels, lubricants, and solvents will be located outside of the stream channel and banks. Any equipment or vehicles driven and/or operated within or adjacent to the stream will be checked and maintained daily to prevent leaks of materials that, if introduced to water, could be deleterious to aquatic life.
- F. Project sites will be revegetated with an appropriate assemblage of native upland vegetation and, if necessary, riparian and wetland vegetation suitable for the area.
- G. If the Corps determines USFWS FESA Section 7 consultations are necessary, NID will abide by the stipulations in the Corps concurrence letter.

**Mitigation Measure Implementation**

**Responsible Party:** NID will ensure that a qualified biologist conducts pre-construction clearance surveys.

**Timing:** One survey will be conducted within two weeks of initiating the Project.

**Monitoring and Reporting Program:** The survey will be conducted by a qualified wildlife biologist and a brief survey report will be documented and kept on file with NID.

**Standards for Success:** Special status species will not be disturbed during the Project construction activities.

**Impact BIO-03: Potential Disturbance of Nesting Special-Status Migratory Birds and Raptors during Construction Activities**

**Finding: Less than significant with mitigation incorporated**

The trees around the Combie Phase I Canal Project site provide potential nesting locations for migratory birds and small to large raptors. There are several medium to large sized trees for nest establishment. Therefore, the proposed Project does have the potential to disturb protected raptor nests and other nesting migratory birds.

The breeding season for most protected birds is generally from March 1 to August 15.

Construction activities during the breeding season could disturb or remove occupied nests of migratory birds or small raptors. This disturbance could cause nest abandonment and subsequent loss of eggs or developing young at active nests in or near the study area. Disturbance resulting in nest abandonment or loss of eggs would be considered a potential substantial adverse impact. Implementation of Mitigation Measure BIO-03 would reduce this impact to a less-than-significant level. Therefore, this impact would be less-than-significant with mitigation incorporated.

**Mitigation Measure BIO-03: Avoid Disturbance of Nesting Special-Status Migratory Birds and Raptors**

NID will implement one of the following measures, depending on the specific construction timeframe, to avoid disturbing ground nesting special- and non-special-status migratory birds and/or raptors.

**If construction activities are scheduled to occur during the breeding season** for these species (generally between March 1 and August 15), a qualified wildlife biologist will be retained to conduct the following focused nesting survey within the appropriate habitat:

- Nesting surveys will be conducted within the Biological Survey Area and all potential nesting habitat within 250 feet of this area.
- The surveys should be conducted within one week before initiation of construction activities at any time between March 1 and August 14. If no active nests are detected, then no additional mitigation is required.
- If surveys indicate that migratory bird nests are found in any areas that would be directly affected by construction activities, a no-disturbance buffer will be established around the site to avoid disturbance or destruction of the nest site until after the breeding season or after a wildlife biologist determines that the young have fledged (usually late June to mid-July). The extent of these buffers will be determined by a wildlife biologist and will depend on the level of noise or construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. These factors should be analyzed to make an appropriate decision on buffer distances.

**If construction activities begin before the breeding season** (i.e., begin between August 15 and February 28) (pre-existing construction), then construction can proceed until it is determined that an active migratory bird nest would be subject to abandonment as a result of construction activities. (Pre-existing construction activities are assumed to be “full force,” as are site grading and infrastructure development. Activities that technically initiate construction but are minor would not be considered full force.) Optimally, all necessary vegetation removal should be conducted before the breeding season (generally between March 1 and August 15) so that nesting birds would not be present in the construction area during construction activities. If any birds nest in the Project vicinity under pre-existing construction conditions, then it is assumed that they are habituated (or will habituate) to the construction activities. Under this scenario, the preconstruction survey described previously should still be conducted on or after March 1 to identify any active nests in the vicinity. Active sites should be monitored by a wildlife biologist periodically until after the breeding season or after the young have fledged (usually late June to mid-July). If active nests are identified on or immediately adjacent to the Project site, then all nonessential construction activities (e.g., equipment storage and meetings) should be avoided in the immediate vicinity of the nest site, but the remainder of construction activities may proceed.



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**Mitigation Measure Implementation**

**Responsible Party:** NID will ensure that a qualified biologist conducts pre-construction surveys.

**Timing:** One nesting survey will be conducted within one week of initiating the Project, should the Project occur between March 1 and August 15.

**Monitoring and Reporting Program:** The survey will be conducted by a qualified wildlife biologist and a brief survey report will be documented and kept on file with NID.

**Standards for Success:** Special status species and migratory bird nests will not be disturbed during the Project construction activities.

Therefore, with the implementation of these measures, this potential impact is thus considered less than significant.

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

**Finding: Less than significant with mitigation incorporated**

**Impact BIO-04: Potential disturbance to Riparian or other designated sensitive natural community.**

The Project was designed to avoid direct impacts to riparian habitat. The Project alignment, within the existing concrete canal, is above and outside the Bear River riparian habitat. The temporary bypass system will be installed below the canal but should not encroach into the Bear River riparian zone. The new siphon/river crossing will be parallel to the old crossing and outside the riparian zone.

Indirect impacts to riparian habitat from erosion, runoff or sedimentation are possible because construction must be conducted between October and April to avoid canal outages during the irrigation season. Sediment control BMPs such as hay coils and natural buffers will be in place in any area where construction activities approach waters of the U.S. An assessment of water quality impacts is addressed in the Water Quality and Hydrology (Section 3-9) of this IS/MND.

Other than the aforementioned riparian habitat, located adjacent but not in the Project area, there is no designated sensitive natural communities.

Note: Wetlands and waters of the US are designated as sensitive by both the Placer County and Nevada County general plans and are addressed in the section below.

Therefore, with the implementation of tree impact avoidance and minimization measure mitigation measure BIO-04 and sediment control mitigation measure GEO-01 the proposed Project will have a less than significant impact on riparian habitat.

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**Mitigation Measure BIO-04: Avoid/Minimize/Compensate for Tree Removal (including Riparian Trees)**

NID will avoid and minimize riparian tree removal and trimming to the extent feasible. The pipes will be placed in an existing canal. The bypass may entail some tree trimming and minor removal. NID shall minimize the number of trees removed (i.e. in the single section of the pipe at the east end that approaches the Bear River riparian habitat).

If trees are removed in the riparian habitat, NID will seek a CDFG Streambed Alteration Agreement and replace the trees at an appropriate ratio as deemed by the permit.

If trees are removed outside the riparian habitat, in Nevada County NID will replant Landmark oaks in accordance with the Nevada County General Plan.

**Mitigation Measure Implementation**

**Responsible Party:** NID will review the design and bypass plans to ensure minimal tree removal.

**Timing:** Prior to finalizing the design plans.

**Monitoring and Reporting Program:** NID will document all trees to be removed as a basis for calculating the replanting numbers.

**Standards for Success:** Removal of riparian trees and protected upland oaks are avoided/minimized and/or compensated.

Therefore, with the implementation of these measures, this potential impact is thus considered less than significant.

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

**Finding: Less than significant with mitigation incorporated**

**Impact BIO-05: Potential Loss of Wetlands from the Proposed Project**

**Wetlands:** During biological surveys conducted by RBI biologists in May and July 2009, there are several locations where wetland plants have become established immediately adjacent to the canal. These areas are established where there are small leaks in the canal and consist primarily of narrowleaf cattail (*Typha angustifolia*), fragile sheath hedge (*Carex fracta*), small rush (*Juncus effusus var. exiguous*) and spikerush (*Eleocharis sp.*). These areas are "leaky ditch wetlands" and according to a 2003 Regulatory Guidance Memorandum, would not likely be considered jurisdictional waters of the US by the Corps. There are no other wetlands on site that will be affected by the proposed Project.

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**Other waters of the US:** The Project was also designed to minimize impacts to waters of the US. The canal currently intercepts two ephemeral drainages that when flowing stream directly into the canal. The Project would entail restoring the flows such that they reach the Bear River by allowing these waters to pass over or under the canal/new pipeline. The new Bear River siphon will be elevated such that like the old siphon the entire structure is located well above ordinary high water mark. The Combie canal itself conveys water from Lake Combie, a water of the US, to a water treatment plant and to agricultural lands. If along the way there are drainages or discharges that link the Canal to a Waters of the US, it may be considered a jurisdictional water. Work in any potential waters of the US requires a delineation and proof of compliance with the Clean Water Act Section 404. If the restoration of the drainages or the work in the Combie canal are considered jurisdictional waters of the US, NID will implement Mitigation Measure BIO-05 and BIO-06. With the implementation of BIO-05 and BIO-06 potential impacts to waters of the US are considered less than significant.

**Mitigation Measure BIO-05. Avoid Site Wetlands**

NID plans to avoid the wetlands and drainage areas during the design phase of the Project.

If wetland avoidance is not practicable, NID will need to apply for a CWA Section 404 Nationwide Permit for the filling of the wetlands and drainage or;

**Mitigation Measure BIO-06. Compensation for Direct Impacts to Wetlands**

If avoidance of the wetlands/waters of the US is not practicable for various engineering or other site constraints, NID shall apply for and obtain a CWA Section 404 Nationwide Permit and comply with the current CORPS compensation schedule for any loss of waters of the US. The NID will work with the CORPS to ensure that the local and federal “no net loss” of wetlands is properly upheld.

**Mitigation Measure Implementation**

**Responsible Party:** NID is responsible for applying for all permits and approvals needed to fill the wetlands.

**Timing:** CWA Section 404 Permit will be obtained prior to construction.

**Monitoring and Reporting Program:** NID will ensure that the CWA 404 wetland permit will be obtained prior to construction and the appropriate fees paid to comply with the COE’s current compensatory mitigation schedule. The NID Project manager will prepare brief letter report on compliance with this mitigation measure for NID files.

**Standards of Success:** No net loss of wetlands from the NID’s Project.

Therefore, with the implementation of these measures, the potential impact to seasonal wetlands and drainages is thus considered less than significant.

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

**Finding: Less than significant**

**IMPACT BIO-06: Potential Impact to Wildlife Movements or Migration**

The existing Combie Canal is located on a cliff and has a slight bench along side. Although, originally a steep cliff and not likely a migration corridor, the area may facilitate the movement of wildlife such as mule deer east and west, up and down the Bear River. The canal is wide and likely currently forms a barrier to deer movement north and south, up and down the bank. The encasement of pipes in the canal may narrow the bench but should not eliminate it. In addition, the covered canal will form a hard surface lane east and west, while allowing for animals to cross the canal north and south. As a result, the proposed Project is expected to have a less than significant impact on mule deer and other common wildlife migrations. Thus the potential impacts to native resident or migratory wildlife species are considered less-than-significant and no mitigation is required.

- e/f) *Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? Would the Project conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?***

**Finding: Less than Significant**

**Impact BIO-7: Potential Project Conflicts with Existing or Planned Habitat Conservation Plans or Local Ordinances**

The Project will not conflict with local ordinances relative to biological resources as specified in the Nevada County General Plan, Nevada County General Plan or other existing or planned habitat conservation plan or local ordinances.

In Nevada County, in accordance with NCGP Policy 13.2 tree removal may be allowed where necessary to comply with public right-of-way development or dedication, or development of required site access and public utilities. Individual trees or groups of trees shall be protected during construction to prevent damage to the trees and their root systems. A site specific biological inventory was conducted by RBI (2009) in accordance with Policy 13.2A and, NID will comply with the appropriate state and federal endangered species act regulations. NID and Nevada County will notify Placer County regarding the proposed work within one mile of the County border in accordance with Objective 13.1. In addition, the Project entails minimal impacts to wildlife corridors in accordance with Objective 13.2. NID will "identify and preserve landmark trees where appropriate" in accordance with Policy 13.7. And all native oak tree species with a trunk diameter of 36" or greater shall be protected in accordance with Policy 13.9.

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In Placer County, the Project entails the south footing of the new cross-river siphon and the 300-foot long pipeline connection to the Combie Ophir canal. In accordance with PCGP Goal 6.C the Project is protective of wildlife habitat, including those of special status species (Policy 6.C.6). In accordance with Policy 6.C.9, the Project preserves/minimizes impacts to riparian habitat. The Project was designed to minimize impacts to wetlands, stream zones, special status species habitat, critical deer migratory routes, etc. in accordance with Policy 6.C.13. The Project also entails measures that minimize impacts to trees (Policy 6.d.3 & 6.d.4).

The Project area is not currently subject to a habitat conservation plan, or the PCCP, or other approved local, regional, or state habitat conservation plans. Therefore, for the above-mentioned reasons, the proposed Project will not conflict with any approved or planned local policies or ordinances protecting biological resources. This potential impact is thus considered less than significant and no mitigation is required.



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### 3.5 CULTURAL RESOURCES

#### 3.5.1 Environmental Setting

This section was developed by Stantec Consulting pursuant to Section 15064.5 of CEQA. The purposes were to (1) identify and record cultural resources in the Project area; (2) make preliminary evaluations of such resources' significance according to the criteria of the California Register of Historical Resources (CRHR); and (3) recommend procedures for avoidance or mitigation of adverse effects to NRHP/CRHR-eligible resources.

#### 3.5.2 Regulatory Setting

CEQA, PRC Section 21083.2, and CEQA Guidelines 15064.5 include provisions for significance criteria related to archaeological and historical resources. A significant archaeological or historical resource is defined as one that (a) meets the criteria of the California Register of Historical Resources (CRHR), (b) is included in a local register of historical resources, (c) or is determined by the Lead Agency to be historically significant. A significant impact is characterized as a "substantial adverse change in the significance of a historical resource." PRC Section 5024.1 authorizes the establishment of the CRHR. Any identified cultural resources must therefore be evaluated against the CRHR criteria.

#### California Register of Historical Resources

In order to be determined eligible for listing in the California Register of Historical Resources (CRHR), a property must be significant at the local, state, or national level under one or more of the following four criteria as defined in Public Resources Code 5024.1 and CEQA Guideline 15064.5(a).

(1) It is associated with events or patterns of events that have made a significant contribution to the broad patterns of the history and cultural heritage of California and the United States. (2) It is associated with the lives of persons important to the nation or to California's past. (3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values. (4) It has yielded, or may be likely to yield, information important to the prehistory or history of the state and the nation.

In addition to meeting one or more of the above criteria, a significant property must also retain integrity. Properties eligible for listing in the CRHR must retain enough of their historic character to convey the reason(s) for their significance. Integrity is judged in relation to location, design, setting, materials, workmanship, feeling, and association.

Evaluation of the historical significance of the APE found that it does not meet the criteria for inclusion on the CRHR. No further recommendations are warranted at this time.

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**Public Resources Code**

PRC Section 21083.2 governs the treatment of unique archaeological resources, defined as “an archaeological artifact, object, or site about which it can be clearly demonstrated” as meeting any of the following criteria:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.
- If it can be demonstrated that a project will cause damage to a unique archaeological resource, appropriate mitigation measures shall be required to preserve the resource in place and in an undisturbed state. Mitigation measures may include, but are not limited to, 1) planning construction to avoid the site, 2) deeding conservation easements, or 3) capping the site prior to construction. If a resource is determined to be a “non-unique archaeological resource”, no further consideration of the resource by the Lead Agency is necessary.

**Encountering Human Remains**

The possibility of encountering human remains cannot be entirely discounted. Pursuant to PRC Section 7050.5 if human graves are encountered, work should halt in the vicinity and the Nevada County Coroner should be notified immediately. At the same time, an archaeologist should be contacted to evaluate the situation. If human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission within 24 hours of this identification.

**3.5.3 Impact Analysis**

**Methodology**

The archaeological area of potential effect (APE) for the proposed Project is approximately 9,100 linear feet of dual pipes within the existing footprint of the Combie Phase 1 Canal and the addition of a 48-inch diameter parallel to the Bear River Siphon. A map of the Project site is included in Figure 3-3 below.

**Cultural Resource Setting**

The following information is adapted from previous literature reviews conducted by NID for the Combie and Bear River area including the Cultural Resource Report for the Lake Combie Mercury Removal Project and the Bear River North Power House, both of which are located immediately adjacent to the proposed Project area.

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- A Cultural Resources Study for the Lake Combie Mercury Extraction Project, Nevada and Placer Counties, California, prepared for Nevada Irrigation District, prepared by Mark D. Selverston, M.A., RPA, Staff Archaeologist, Anthropological Studies Center, Sonoma State University (2008).
- Combie North Powerhouse Replacement Project, Jones & Stokes CEQA IS/MND Cultural Resource Section (2009)

**Prehistoric Setting**

The prehistory of Lake Combie and the Bear River corresponds with the cultural sequence of the greater northern Sierra Nevada. Kathleen Hull (2007) recently summarized the archaeology of these rugged mountains, describing 10,000 years of occupation, drawing from culture histories of both the Great Basin and California's Central Valley and coast. Denise Jaffke (2006) has presented this northern Sierra prehistoric cultural chronology as follows: Pre- Martis (3000 B.C. and prior); Martis complex (3000 B.C. to A.D. 700); and Kings Beach complex (A.D. 700 to 1850). Both Martis and Kings Beach represent seasonal use of the uplands, with movement to the lower elevations below the snowline in the fall and winter (Markley and Henton 1985:13). Transitions between cultural units are marked by changes in sociopolitical complexity, trade networks, populations, and the introduction of artifact types (Fredrickson 1974, 1994).

Prehistoric sites in the Lake Combie vicinity may consist of darkened midden soils containing deposits of ash, heat affected rock, flaked stone and groundstone artifacts, and obsidian, basalt, and chert tool manufacturing debris. Task specific bedrock milling stations, limited in the variety of features and artifacts present, may occur in the vicinity of occupation sites, or may occur isolated near resource procurement areas. Jenson and Associates (1996:2–4, 1999:6) and Wickstrom (1998:9) identified a cluster of occupations sites and nearby bedrock milling features on knolls in the vicinity of Lake Combie. Jenson and Associates (1996:57) postulated a relatively long occupation by multiple groups between 1500 B.C. and A.D. 1000, encompassing the transition from the Martis Complex to the Kings Beach Complex. Isolated bedrock milling stations have also been identified nearby, specifically consisting of four stations along an ephemeral drainage within a mile to the east of Lake Combie (Peak and Associates 1983). Lastly, it is not uncommon to find isolated artifacts away from both habitation and bedrock milling sites. Basalt and obsidian flaked stone debitage as well as portable milling stone were discovered in isolated contexts in the hills to the northwest, somewhat surrounding the cluster of occupation sites and open valley in that direction (Wickstrom 1998:10).

**Ethnographic Setting**

The Combie Canal is within the territory of the Nisenan (Wilson and Towne 1978:387). Stephen Powers's (1877:316) ethnographic work in the 1870s indicated a very dense population of "Nishinam" along the Bear River, naming 18 villages between Sacramento and the mountains, and suggesting three times that number likely existed. Native informants interviewed by Hugh Littlejohn in 1928 named many additional villages (Carlson 1986:10). Carlson (1986) and Wilson and Towne (1978) have compiled substantial ethnographic data regarding the Nisenan. This group, also known

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as the Southern Maidu, claimed the Yuba, Bear, and American river watersheds, extending from the Sierra Nevada summit to the Sacramento River (Wilson and Towne 1978:388). Their word *nisenan* (nee ce non) means 'from among us' (Chalmers 2006:9). Northern Hill Nisenan is the dialect of the Nisenan language spoken in the Lake Combie area. Nisenan is a member of the Maidu language family (attributed to the Penutian language stock), which also includes Konkow Maidu, Chico Maidu, and Mountain Maidu. The Maidu languages were spoken throughout an area extending northward to the Feather River, Lassen Peak, and Honey Lake (Riddell 1978:371).

Linguist Victor Golla (2007:77) proposed that Maidu speakers migrated from the northwestern Great Basin into the Sierra Nevada, where they were cut off about 1,000 years ago, and that these Penutian speakers integrated elements of the preceding Hokan language similar to Washoe. Other Penutian-speaking people form a contiguous block across the Central Valley and into the San Francisco and Monterey bay areas, with cousins in Oregon and as far north as southeastern Alaska, but these groups evidently migrated at different times. The Nisenan spoke three distinct dialects: the Northern Hill in the Yuba and Bear drainages; Southern Hill on the American River; and the Valley congregated by the Sacramento River, with further dialectical division evident.

The Hill Nisenan based themselves in the foothills. Groups moved into the mountains during the spring and summer, and returned to below the snowline to collect acorns and hear the stories of their ancestors over the fall and winter (Carlson 1986:5, 28). Their settlements were transitory, with villages being relocated within a decade, and individual lodges perpetually being moved, especially on the death of one of the inhabitants. While ethnographic period Chief Wemah primarily resided in the vicinity of modern-day Weimar, which was named for him, he traveled to "temporary villages" throughout his territory, which stretched from the South Fork Yuba River to Bear River, and from the High Sierra to the Central Valley (Chalmers 2006:13).

A dwelling typically housed an extended family, with grandparents and unmarried relatives included. Six or so conical dwellings with one or more acorn granaries formed a village, along with a large assembly or dance house in the major villages. They selected open, flat ground on knolls, ridgetops, or crests, and on gentle slopes or mid-slope benches with southerly exposure (Carlson 1986:8, 9, 11). The Project area, in contrast is considered a steep rocky slope, but south facing. Boundaries of village communities are not exact, and various factions shared resource areas. Groups from Auburn, Colfax, and Foresthill were apparently related to the tribelet around Grass Valley, evidenced by all of these groups using burial grounds between Grass Valley and Nevada City (Carlson 1986:16).

The Maidu and Washoe reportedly shared the headwaters of the Yuba and Bear drainages above the snowline for hunting, although some informants reported that Hill Nisenan would attack small hunting parties of Washoe (Carlson 1986:7, 24).

Alan Wallace, a cultural resource consultant and Nisenan-Maidu artist, compiled a list of ethnographically known sites at Lake Combie, drawing from Riddell's *The Ethnography of the Hill Nisenan*, along with information from members of his own family. His summary indicates that Wooley Creek—now a substantial portion of the southwest part of Lake Combie—was heavily settled, with four named habitation areas (Alan Wallace 2008, personal communication by AES).

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His findings also point to settlements in the vicinity of Van Giesen Dam and Combie Crossing. With the possible exception of the extreme SW 1/4 of Section 36, T14N/R8E—the location of Combe crossing.

**Historic Setting**

The Hill Nisenan territory experienced intermittent intrusions by non-native people prior to the Gold Rush. Although events between 1770 to about 1830 would have had some impact on the Nisenan living along Bear River, any such effects have, in general, not been recognized in the archaeological record. Spanish, as well as Russian, exploration parties from the settlements along the coast had explored the interior as early as 1808. This phase of sporadic incursions into the interior ended with Jedediah Smith traversing the Central Valley and foothills in 1827. His route crossed ethnographic Nisenan territory. His descriptions of his travels opened the door to French- and English- speaking fur trappers entering the valley from the northeast, ushering in an exploration and settlement period. Foreign disease entered the valley with these trapping parties. An estimated 75 percent of the indigenous population had died from epidemic diseases by 1833 (Cook 1955:311).

Around the time of Work's fur- trapping expedition, the coastal Franciscan missions were undergoing a process of secularization, sparking an increase in land grants. Spanish- speaking California under Mexican authority—beginning in 1822—increasingly participated in global trade and began to allow foreign settlement in order to populate the frontier (Nunis 1998). Rancho expansion reached into the interior, beginning with John Sutter in 1839, and more non-Hispanic immigration and settlement soon followed during the 1840s. Overland trails were beaten across the Sierra Nevada, with many taking the California Trail by way of the Truckee Pass (Hoover et al. 1990:239). The early snow in 1846 resulting in the well-known Donner Party tragedy illustrates the hazards of the overland trek.

Tensions between the United States and Mexico mounted, with President James K. Polk announcing by proclamation in May 1846 that a state of war existed between the two republics. Two important and well-known events occurred virtually simultaneously in the early months of 1848, affecting developments in the Sierra Nevada: first, Mexico and the United States signed a peace treaty that ceded California; and second, James W. Marshall discovered gold on the American River.

The news of abundant gold spread across the globe in a well-documented order: beginning locally in California; then to shipping ports across the Pacific; from Oregon to the Sandwich (Hawaiian) Islands and throughout Central and South America. Migrations of people from each place headed in turn to the poorly known, often uncharted mountains of California. The enduring cycles of gold mining did not end with the initial Gold Rush. Gold mining in the Sierra Nevada followed the booms and busts typical of this industry throughout the West. It took about 15 years to exhaust the shallow surface sediment, but settlers continued to mine for all types of gold deposits into the 20th century.

Auguste Combe settled on the banks of Bear River in the SE 1/4 of Section 35, T14N/R8E, and the NE 1/4 of the NE 1/4 of Section 2, T13N/R8E, eventually obtaining the land through scrip in 1875.



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His house and garden are depicted on the 1871 General Land Office Map (GLO) close to the river and next to the study area, and the property was under his name on Hartwell's Map of Nevada County dated 1880. Lindgren's (1895) early topographic map depicts a road and river crossing across his land, calling it Combie [sic] Crossing. By 1913 the property belonged to J. A. Robles, and the crossing name reverted back to the Combe spelling (Miller 1913).

Another pioneer of the study area was Berry Cox, an African American gold miner born around 1809 in Missouri. He also used scrip to obtain his tract of land in 1873, located in the SE 1/4 of Section 36, T14N/R8E.

**Canal and Water Systems in Placer and Nevada Counties**

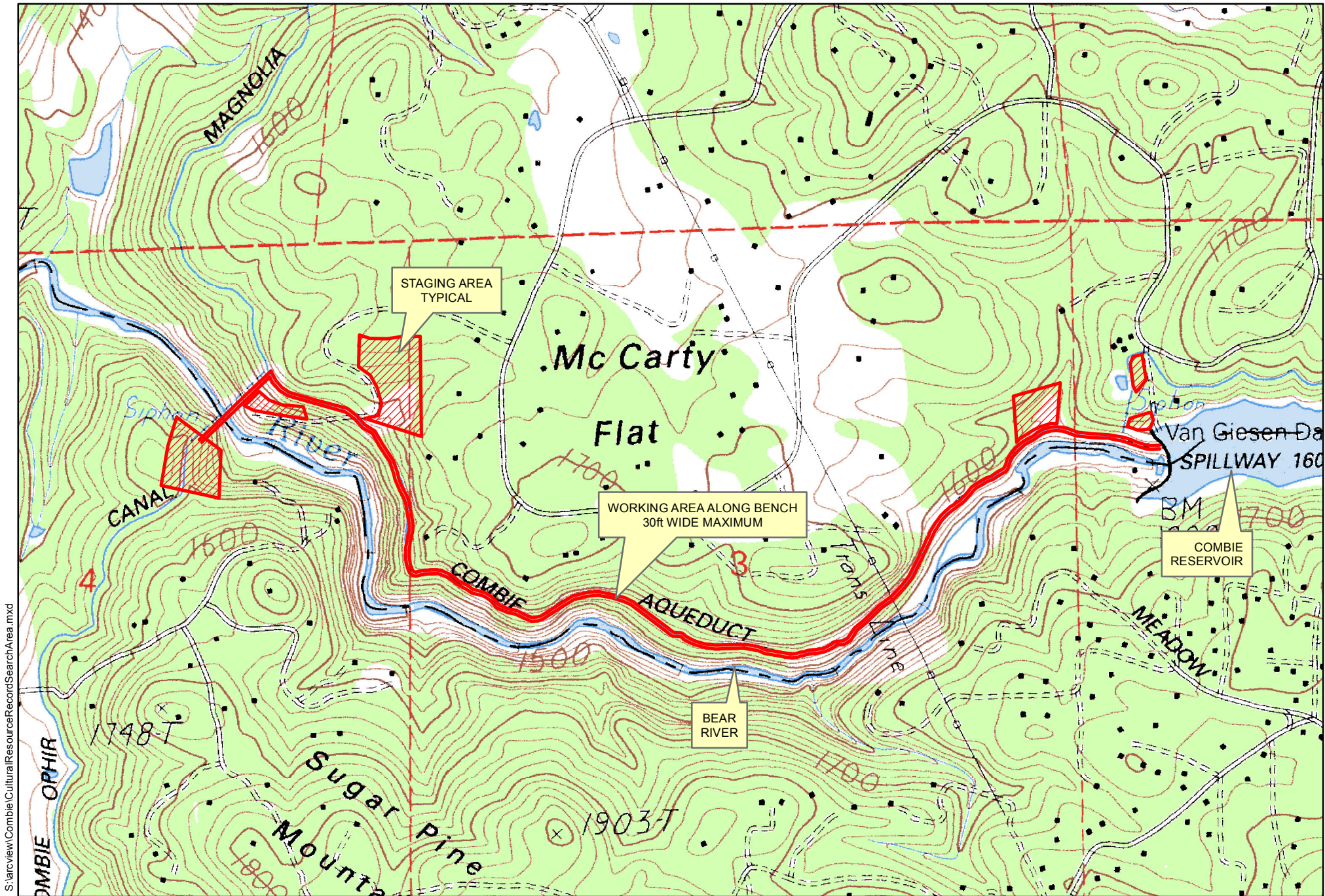
Many canal systems in northern California originated during the Gold Rush as mining ditches. With the advent of sluicing and hydraulic mining, transporting water became an extremely profitable endeavor, and numerous companies quickly formed to begin construction of waterworks to distribute water from mountain rivers across the slopes and ridges of the foothill region. By the 1860s, Placer County had 390 miles of interconnecting ditches and flumes, while 850 miles of similar water conveyance development wound through Nevada County (Lardner and Brock 1924).

As monetary returns from the mines began to diminish, many miners turned to agriculture to make a living. During the late 1880s, water conveyance systems originally constructed for mining were rapidly adapted to agricultural irrigation. Over subsequent decades, these systems were further developed to satisfy growing agricultural and residential water demand and to power hydroelectric generators (Lardner and Brock 1924).

Originating in Nevada County, the Nevada Irrigation District was founded in 1921 to manage and expand the area's water development. In 1926, residents of adjacent Placer County voted to join NID, which expanded the district by 66,500 acres. As part of this expansion, in 1928 NID completed construction of the 87-foot-high arch-designed Van Giesen Dam (subsequently known as the Combie Dam), which stored Bear River water in the Combie reservoir (Auburn Journal and Placer County Republican 1928). By 1858 the reservoir had a water-holding capacity of 9,000 acre feet (Tibbetts 1927; Mermel 1858; NID 2008).

Combie Phase 1 Canal is among the water conveyance canals associated with the Combie Dam and reservoir which NID created during the late twentieth century. The canal was constructed in 1973-74 to transport water from to the Combie North Powerhouse (Roderick, personal communication).





S:\arcview\Combie\CulturalResourceRecordSearchArea.mxd



**NEVADA IRRIGATION DISTRICT**

NEVADA COUNTY -- PLACER COUNTY  
GRASS VALLEY, CALIFORNIA

**CULTURAL RESOURCE RECORD SEARCH AREA**

**COMBIE PHASE 1 CANAL**

FIGURE 3-3

Drawn By: D. HUNT

Date: 2/8/2011

Scale: 1" = 1000' @ 8-1/2x11



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**Records Search**

As part of the study, a records search was conducted at the North Central Information Center (NCIC) of the California Historical Resources Information System by Stantec staff, on February 18, 2011 (NCIC File No. NEV-11-08) for the Project area. The NCIC, an affiliate of the State of California Office of Historic Preservation, is the official state repository of archaeological and historic records and reports for a 6-county area that includes Placer and Nevada County, and it is housed at Sacramento State University.

The records search for this study was performed in order to (1) determine whether known cultural resources had been recorded within or adjacent to the study area; (2) assess the likelihood of unrecorded cultural resources based on archaeological, ethnographic, and historical documents and literature; and (3) to review the distribution of nearby archaeological sites in relation to their environmental setting.

The record search included a review of all cultural resources, reports, and recorded cultural resources within the immediate Project area. The records were accessed by utilizing the Lake Combie U.S. Geological Survey 7.5-minute quadrangle map. Other sources reviewed included the OHP Historic Property Data File (2010), Determination of Eligibility (2010), NRHP/CRHR listings (2008 & updates), California Inventory of Historical Resources (California Office of Historic Preservation, 1976), California State Historical Landmarks (1996), Points of historic Interest (1992), Caltrans Bridge Inventory, and Historic Maps.

The records search revealed that no known resources have been recorded in the Project area. Two reports have been produced within the Project area and no resources were recorded in those reports within the Project area (Martin, 1991; Selverston, 2008).

Given the amount of disturbance within the APE and previous negative findings, it was anticipated that there would be a low likelihood that prehistoric resources, ranging from isolated artifacts or features to lithic debris scatters, might be encountered during the survey. It was also considered a low possibility that other historic-period domestic deposits related to homesteads and/or mining activity would be present.

Site indicators for the presence of prehistoric sites in this area may include, but are not limited to, ground depressions; darkened soil areas indicative of middens; fire scorched and/or cracked rock; modified obsidian, chert, or other vitreous materials; and grinding stones including manos and metates. Historic era artifacts may include, but are not limited to, metal objects including nails; containers or miscellaneous hardware; glass fragments; ceramic or stoneware objects or fragments; milled or split lumber; trenches; feature or structure remains such as buildings or building foundations; and trash dumps.

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**Native American Consultation**

On February 14, 2011, the Native American Heritage Commission (NAHC) was asked to review the Sacred Lands file for information on Native American cultural resources on the Project site. On February 23 and March 2, 2011, the NAHC responded indicating that they have no knowledge of Native American resources within the Project site. However, they did provide a list of ten individuals/organizations to consult with further. Consultation letters to these individuals/organizations were sent on March 1 & 4, 2011. A Project site visit was requested by the Maidu and the United Auburn Indian Community of the Auburn Rancheria. On April 19, 2011, representatives from the Maidu and the United Auburn Indian Community of the Auburn Rancheria visited the site and agreed that the Project had a less than significant impact to cultural resources with the implementation of Mitigation Measures CULT-01 and CULT-02. All other Native American individuals and groups contacted regarding the Project either had no comments or did not respond. The correspondence has been attached in Appendix B of this document.

**Field Survey**

Stantec anthropologist, Meagan O'Deegan conducted a reconnaissance level survey of the approximately 9,100 linear feet Project site on December 22, 2010. Ms. O'Deegan evaluated the area for the presence of prehistoric or historic site indications. The survey used transects spaced no more than three meters apart and examined the entire APE. Ground visibility was fair to poor and was covered with dirt, gravel, or vegetation. The survey found that the APE has been subject to historic and modern disturbances including previous canal infrastructure installation. No prehistoric or historic cultural resources were observed within the study area.

**Results and Findings**

A full accounting of all potential cultural resources located within the APE was achieved through a records search, Native American consultation, and reconnaissance level field survey. The survey confirmed that the ground surface within the APE has been previously disturbed and developed. No potentially significant cultural resources were identified as a result of our efforts. Based on the negative results of the current investigation, as well as four previous studies within the APE, it is considered unlikely that there are intact cultural deposits within the APE. In summary, we are confident that our identification efforts have adequately explored the Project site and its potential for cultural resources. As such, a finding of No Historic Properties Affected is recommended. No further cultural resources study is warranted unless the design of the Project changes. There is the possibility, although very remote, that subsurface archaeological deposits may exist in the APE, as archaeological sites may be buried with no surface manifestation.

The proposed Project is located below the Combie Dam. The Project does not entail an increase or decrease in flows or change in the operation of the Lake/Lake level. Table 3-5 below discusses the potential Project-related impacts relative to cultural resources for the Project.

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Table 3-5

CEQA Checklist for Assessing Project-Specific Potential Impacts to Cultural Resources

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
V.	<b>CULTURAL RESOURCES.</b> Would the Project:				
a)	Cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d)	Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

**Finding: Less than significant with mitigation incorporated**

There are no known significant historic-period features or resources within the area of potential effect (APE). The Project is located on what was a steep cliff above the Bear River where a bench was carved out for the canal in the 1970s. Therefore, the likelihood of encountering a significant historical resource on this relatively uninhabitable steep cliff is limited. That said, the possibility for encountering unanticipated cultural resources during construction of the proposed Project does exist. Therefore, Mitigation Measure CULT-01 is required to reduce impact to a less than significant level.

**Mitigation Measure CULT-01: Proper Handling of Inadvertent Discovery of Cultural Resources**

If cultural resources are encountered during Project construction, construction shall be halted immediately in the subject area and a qualified professional archaeologist shall be consulted. Prehistoric resources may include chert or obsidian flakes, Projectile points, mortars and pestles, dark friable soil containing shell and bone dietary debris, and heat-affected rock. Historic resources may include stone or wood foundations or walls, structures or remains with square nails, and refuse deposits.



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**Mitigation Measure Implementation**

**Responsible Party:** NID would ensure the appropriate treatment for any discovery of pre-historic or historic resources during construction.

**Timing:** During all ground disturbing activities.

**Monitoring and Reporting Program:** If any find is determined to be significant, representatives of NID and a qualified archaeologist would meet to determine the appropriate avoidance measures or other appropriate mitigation. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards. A report will be kept on file at NID.

**Standards of Success:** The proper recording, evaluation, and treatment of any newly identified pre-historic or historic resources.

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

**Finding: Less than significant with mitigation incorporated**

There are no known significant Native American cultural sites or archeological deposits within the APE. In addition, the Project is located on what was a steep hillside above the Bear River where a bench was carved out for the canal in the 1970s. Therefore, due to the steep rocky terrain and disturbed nature of the bench and canal site, the likelihood of encountering a significant historical resource on this relatively uninhabitable hillside is limited. The possibility can never be fully discounted for encountering cultural resources during construction of the proposed Project. Therefore, Mitigation Measure CULT-01 (above) is required to reduce impact to a less than significant level.

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

**Finding: Less than significant with mitigation incorporated**

There are no known significant paleontological sites or deposits within the APE and the Project area is located along a steep, rocky hillside, where habitation would have been difficult. In addition, the site is previously disturbed. Excavation and blasting were necessary to install the hillslope bench in the 1970s for the canal. However remote, the possibility for encountering paleontological resources during construction of the proposed Project does exist. Therefore, Mitigation Measure CULT-01 (above) is required to reduce impact to a less than significant level.

**d) *Would the Project disturb any human remains, including those interred outside of formal cemeteries?***

**Finding: Less than significant with mitigation incorporated**

There are no known human burials or remains within the Project area and due to the rocky steepness of the terrain, and previously disturbed nature of the site (blasting to create a bench for the Combie canal), the likelihood of encountering a burial is limited. In the event that human remains are encountered during construction of the proposed Project mitigation measure CULT-02 will be employed. Therefore, Mitigation Measure CULT-02 is required to reduce impact to a less than significant level.

**Mitigation Measure CULT-02: Proper Handling of Inadvertent Discovery of Human Remains**

If human graves are encountered, work should halt in the vicinity and the County Coroner shall be notified immediately pursuant to PRC Section 7050.5. At the same time, an archaeologist shall be contacted to evaluate the situation. If human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission within 24 hours of this identification.

**Mitigation Measure Implementation**

**Responsible Party:** The NID and Nevada County Coroner would insure the appropriate treatment for any discovery of any human remains during construction.

**Timing:** During all ground disturbing activities.

**Monitoring and Reporting Program:** The recording and evaluation of any newly identified human remains will be conducted by qualified professional archaeologist and a report will be kept on file at the District

**Standards of Success:** The proper recording, evaluation, and treatment of any newly identified human remains.

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**3.6 GEOLOGY AND SOILS****3.6.1 Environmental Setting**

The regional geology of the Project area consists of Mesozoic plutonic rocks, consisting of quartz diorite, tonalite, trondhjemite, and quartz monzonite, and Oligocene-Miocene volcanic rocks consisting of rhyolite tuffs and sediments (Saucedo and Wagner, 1992). A recent geotechnical report of the New Combie Powerhouse site, at the eastern end of the Combie canal and Project area, found that the site was generally characterized by relatively shallow soils (or fill) less than 5 feet deep, overlying massive metavolcanic rocks ranging from slightly to highly weathered (Kleinfelder, 2007).

Near surface soils of the Project area were mapped in 1975 by the Natural Resources Conservation Service (NRCS) as the Chaix-Rock outcrop complex, 30 to 75 percent slopes; the Boomer-Rock outcrop complex, 5 to 30 percent slopes; and the Sites very stony loam, 15 to 50 percent slopes. The following includes a brief summary of select soil properties of these map units based on data presented in the Soil Survey. Up to 20 percent of the two complexes is rock outcrop potentially overlain by as much as four inches of unconsolidated soil, while the named soil series component comprises 60 percent of the map unit area. The Boomer loam is well drained, deep to very deep over metavolcanic bedrock, and has very low permeability. The Chaix sandy loam is well drained, moderately deep over highly weathered (soft) granodiorite, and has low to moderately low permeability. The Sites very stony loam, comprising 85 percent of the map unit area, is well drained deep to very deep over highly weathered (soft) metasedimentary bedrock, and has very low permeability. The erosion hazard for areas associated with roads and trails is severe for each map unit, while off road areas have moderate to very severe erosion hazard. The runoff potential for these soils ranges from moderate to very high.

The Wolf Creek Fault Zone, with evidence of late Quaternary (between 12,000 and 700,000 years ago) movement, is just west of the canal's alignment (CGS, 2010). Several other late Quaternary and older faults occur in the vicinity of the Project area including the Bear Mountains Fault Zone, Deadman Fault, Spenceville Fault, Maidu Fault, and several pre Quaternary (greater than 1.6 million years ago) fault traces associated with these faults zones, or unnamed faults (CGS, 2010). The closest faults with historic (within the last 200 years) displacement are over 60 miles away: A fault trace near the Dog Fault trace and east of the Polaris Fault, northeast of the town of Truckee; and the Cleveland Hill Fault near the town of Oroville. Moreover, the Cleveland Hill Fault is the nearest principal fault identified and mapped pursuant to the Alquist-Priolo Earthquake Zoning Act.

Based on the California Geologic Society's (CGS) *Estimation of Future Earthquake Losses in California* (2005), Nevada County is in the lowest range for annual economic loss due to building damage per county (less than \$1 million). Moreover, the peak ground shaking velocity with a two percent probability of being exceeded in the next 50 years for the Project area is 0.105 times the acceleration due to gravity (g) for firm rock and 0.153 g for alluvium (CGS, 2002). These velocities correspond to between VII and VIII on the modified Mercalli scale and slight to moderate property

damage, particularly to poorly constructed and/or designed construction. The site is located in Zone 3 on the 1997 Universal Building Code Seismic Hazard Map.

Liquefaction, a process in which the soil behaves like a liquid, can damage buildings, roads, and pipelines through uneven settlement of the soil and the soils loss of structural support capabilities (USGS, 2008). In order for liquefaction to occur, there must be loose granular sediment that is saturated and there must be strong ground shaking (USGS, 2008). The low ground shaking potential of the site and well drained cohesive soils over bedrock minimize the potential for liquefaction.

The risk to landslides in Nevada County is generally low, and moderate at worst, due to the prevalence of igneous and metamorphic bedrock overlain by relatively shallow cohesive soils (Nevada County, 1995). One exception to this is areas where placer mining has resulted in unstable steep slopes. Although there is a landslide likely associated with past placer mining on a tributary canyon south of the Bear River, there is no evidence of landslides or placer mining along the canal alignment on the north side of the Bear River.

### **3.6.2 Regulatory Setting**

#### **Seismic Related Regulations**

The Alquist Priolo Zoning Act requires the mapping of zones around active faults in California, in an effort to prohibit the construction of structures for human occupancy on active faults and minimize damage due to rupture of a fault. The Seismic Hazard Mapping Act is intended to delineate zones where earthquakes could cause hazardous ground shaking and ground failure. Both of these acts require local cities and counties to regulate activities within these zones. Additionally, Title 24 of the California Code of Regulations, the California Standard Building Code, contains specific requirements for construction with respect to earthquakes intended to be protective of public health; however, as a water transmission project the building code does not apply (Government Code Section 53091). Yet, the project will adhere to construction standards as established by the American Water Works Association.

#### **Stormwater Quality and Erosion Control Regulations**

A Statewide General Construction Stormwater Discharge (GCSD) Permit (Order No. 2009-0009-DWQ) was adopted by the State Water Resources Control Board (SWRCB) on September 2, 2009 for construction projects that disturb greater than one acre or have the potential to impair water quality. The permit is required regardless of the time of year that construction occurs. This permit requires a Notice of Intent to be submitted, a Stormwater Pollution Prevention Plan (SWPPP) to be developed and implemented, and monitoring to be conducted. The SWPPP must contain best management practices (BMPs), other measures to prevent pollution, and a construction timeline. The SWPPP shall demonstrate compliance with erosion and sediment control standards and identify responsible parties. Furthermore, a BMP maintenance program is required by the SWPPP,

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which should include proper installation and thorough and frequent inspection to ensure the effectiveness of specific BMPs. The project will require coverage under this permit.

**Nevada County General Plan**

The Nevada County General Plan contains elements to control erosion, including Goal 12.1 “Minimize adverse impacts of grading activities, loss of soils and soil productivity.” Specifically, the county enforces a Grading Code (Section L-V Article 19 of the Nevada County Land Use and Development Code) with the scope of “...sets forth rules and regulations to control excavation, grading and earthwork construction, including fills and embankments; establishes standards of required performance in preventing or minimizing water quality impacts from storm water runoff; establishes the administrative procedure for issuance of permits; and provides for approval of plans and inspection of grading construction, drainage, and erosion and sediment controls at construction sites.” (Sec L-V 19.2A). Section L-V 19.14 establishes standards for erosion control, including the requirements for preparing erosion control plans. However, per Government Code Section 53091, the County’s Zoning and Building Codes are not applicable to the project, since the project is for the transmission of water.

**Placer County General Plan**

**Goal 8.A:** To minimize the loss of life, injury, and property damage due to seismic and geological hazards.

**3.6.3 Impact Analysis**

Table 3-6 and the section below discuss the potential Project impacts relative to geology and soil-related issues.

Table 3-6

**CEQA Checklist for Assessing Project-Specific Potential Impacts to Soils and the Potential for Geologic Impacts to the Project**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
<b>VI. GEOLOGY AND SOILS -- Would the Project:</b>				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on strata or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) Would the Project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**

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

**Finding: Less than significant**

The Project area is not located in a fault zone delineated on the California Geological Survey, Alquist-Priolo Earthquake Fault Zoning map (CGS, 2010). The nearest active fault is approximately 60 miles from the Project site. The Project does not include construction of structures for human occupancy and would not subject people or structures to adverse effects due to rupture of a known fault because there are no known active faults in the Project area, based on information provided by the California Geological Survey maps (CGS, 2010). The Wolf Creek Fault Zone is just west of the Project area; however, this is not an active fault with most recent movement occurring between 12,000 and 700,000 years ago (CGS, 2010). Therefore, impact is less than significant.

**ii) Strong seismic ground shaking**

**Finding: Less than significant**

The Project area is susceptible to low ground shaking (<0.2 g) associated with a major earthquake on nearby active faults, in which slight to moderate damage to ordinary structures and negligible damage to well designed and constructed structures is possible. The District will consider existing

geotechnical survey information for the proposed Project area in design and construction of the facilities to withstand potential seismic ground shaking. Therefore, potential seismic impacts are considered less than significant.

**iii) Seismic related ground failure, including liquefaction.**

**Finding: Less than significant**

Soils underlying the facility are generally shallow (less than 5 feet deep) to bedrock, cohesive, well drained, and not likely susceptible to liquefaction. Furthermore, the site is not susceptible to strong ground shaking necessary for liquefaction to occur. Therefore, potential liquefaction impacts are considered less than significant.

**iv) Landslides.**

**Finding: Less than significant**

The Project area is located along the north side of the Bear River where soils are generally shallow over dense igneous and metamorphic bedrock, and the potential for landslides is low (Nevada County, 1995). There is no evidence of placer mining or historic landslides north of the Bear River along the canal's alignment. Therefore, impacts are considered less than significant.

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

**Finding: Less than significant with mitigation incorporation**

The Project area is underlain by soils with moderate to very severe erosion hazard for on and off road areas (NRCS, 1975). The majority of disturbance will be limited to the existing access road along the canal and within the canal itself; however, activity may disturb areas outside of this foot print and promote soil erosion. Currently, incident precipitation on the canal, and potentially some runoff, is collected by the canal. The Project will create an impervious area where the canal is currently located that could lead to increased runoff amounts. Thus, these construction activities could represent a significant impact to soil erosion if not properly controlled.

As a measure to control erosion, the Project will be conducted in accordance with the requirements stipulated in the Statewide GCSD permit and incorporate mitigation measure GEO-01.

The District will require that the selected contractor prepare an erosion control plan and a storm water pollution prevention plan (SWPPP) prior to construction. The plans should provide, whenever practicable, Best Management Practices including measures to trap sediment and prevent soil erosion or transport to nearby surface water courses or storm drains. These plans shall be implemented and inspected accordingly throughout the construction process. Additionally, these plans will include measures for restoring and stabilizing the Project area after final construction to minimize and control erosion from the completed Project. The implementation of the erosion control plan along with the construction period SWPPP should minimize any substantial soil erosion or loss of topsoil, reducing impact to less than significant levels with mitigation GEO-01 incorporated.

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**Mitigation Measure GEO-01: Sedimentation and Erosion Control Measures**

The contractor shall prepare and implement an erosion control plan and Stormwater Pollution Prevention Plan (SWPPP) to ensure erosion and sedimentation from the Project is kept to a minimum. As well, for all activities disturbing greater than one acre, the contractor will be required to obtain a *Statewide General Construction Stormwater Discharge Permit* (RWQCB, 2009). The contractor shall prepare and implement the SWPPP, and standard erosion and sediment control best management practices will be used during and after construction to control accelerated soil erosion and sedimentation and ensure there will be no adverse affect on the Bear River or other associated drainages.

Straw bales, silt fence, coir rolls, and other erosion protection devices will be used in areas of bare soil, and in drainages near all areas of disturbance to reduce surface runoff velocities and to prevent sediment from entering drainages. Maintenance of erosion and sediment control measures during the construction phase will be conducted on a weekly basis.

The re-vegetation of all graded and disturbed areas of bare soil, will be completed within three months of Project completion, or prior to the rainy season. Seed mixes approved by NCRS will be used to replicate the naturally occurring vegetation.

**Mitigation Measure GEO-01 Implementation**

**Responsible Party:** The District will require the contractor to develop and implement the Stormwater Pollution and Prevention Plan (SWPPP) and re-vegetate the site.

**Timing:** During and immediately after construction activities.

**Monitoring and Reporting Program:** The recording and evaluation of the SWPPP and erosion control practices will be conducted by the District and contractor and kept on file at the District office.

**Standards of Success:** Minimize on- and off-site erosion and prevent introduction of significant amounts of sediment into any stream or drainage.

- c) ***Would the Project be located on strata or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?***

**Finding: Less than significant**

The Project is located on relatively shallow, well drained, cohesive soils underlain by dense bedrock. These soils, and the bedrock, are inherently stable, generally not susceptible to landslide or lateral spreading, and are not likely susceptible to subsidence or liquefaction. Furthermore, the Project will incorporate site specific recommendations from geotechnical surveys to protect the public and construction personnel from potential geologic hazards. Therefore, impacts are considered less than significant.

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

**Finding: Less than significant**

The surface soils have clay contents of less than 30 percent and coefficients of linear extensibility ranging from 0 to 6 percent. These soils generally have medium to no expansion potential and the potential for damage due to expansive soils is low, and fills will be evaluated to ensure that they are not expansive. As such, this impact is considered less than significant.

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

**Finding: No impact**

The Project is an upgrade of an existing water transmission structure, and no wastewater will be produced as a part of the Project. Moreover, onsite wastewater treatment and disposal is not a necessary component of the Project. Therefore, no impact would occur.

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**3.7 GREENHOUSE GAS EMISSIONS****3.7.1 Environmental Setting**

Green house gases (GHGs) and climate change are a cumulative global issue. CARB and EPA regulate GHG emissions within the State of California and the United States, respectively. While the CARB has the primary regulatory responsibility within California for GHG emissions, local agencies can also adopt policies for GHG emission reduction.

**Greenhouse Gases (GHGs)**

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

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

- Carbon Dioxide (CO<sub>2</sub>): CO<sub>2</sub> enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and chemical reactions (e.g., the manufacture of cement). CO<sub>2</sub> is also removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.
- Methane (CH<sub>4</sub>): CH<sub>4</sub> is emitted during the production and transport of coal, natural gas, and oil. CH<sub>4</sub> emissions also result from livestock and agricultural practices and the decay of organic waste in municipal solid waste landfills.
- Nitrous Oxide (N<sub>2</sub>O): N<sub>2</sub>O is emitted during agricultural and industrial activities as well as during combustion of fossil fuels and solid waste.
- Fluorinated Gases: HFCs, PFCs, and SF<sub>6</sub> are synthetic, powerful climate-change gases that are emitted from a variety of industrial processes. Fluorinated gases are often used as substitutes for ozone-depleting substances (i.e., chlorofluorocarbons, hydrochloro fluorocarbons, and halons). These gases are typically emitted in smaller quantities, but because they are potent climate-change gases, they are sometimes referred to as high Global Warming Potential (GWP) gases.

**Project Setting**

The Project entails the installation of 9,100 linear feet of dual pipes within the existing footprint of the Combie Phase 1 Canal and the addition of a 48-inch diameter parallel to the Bear River Siphon. The proposed Project is located in Nevada and Placer County.



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**3.7.2 Regulatory Setting****Federal Regulations****U.S. Environmental Protection Agency (EPA)**

On April 2, 2007, in *Massachusetts v. EPA*, 549 U.S. 497 (2007), the Supreme Court found that GHGs are air pollutants covered by the Clean Air Act. The Court held that the EPA must determine whether or not emissions of GHGs from new motor vehicles cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making these decisions, the EPA was required to follow the language of Section 202(a) of the FCAA. This is because the Supreme Court decision resulted from a petition for rulemaking under Section 202(a) filed by more than a dozen environmental, renewable energy, and other organizations.

On April 17, 2009, the EPA Administrator signed proposed “endangerment and cause or contributes findings” for GHGs under Section 202(a) of the FCAA. The EPA held a 60-day public comment period, which ended June 23, 2009, and received over 380,000 public comments. These included both written comments as well as testimony at two public hearings in Arlington, Virginia and Seattle, Washington. The EPA carefully reviewed, considered, and incorporated public comments and has now issued these final Findings.

The EPA found that six GHGs taken in combination endanger both the public health and the public welfare of current and future generations. The EPA also found that the combined emissions of these GHGs from new motor vehicle engines contribute to the greenhouse as air pollution that endangers public health and welfare under CAA section 202(a). These Findings were based on careful consideration of the full weight of scientific evidence and a thorough review of numerous public comments received on the Proposed Findings published April 24, 2009. These Findings went into effect on January 14, 2010.

**State Regulations**

There are a variety of statewide rules and regulations which have been implemented or are in development in California which mandates the quantification or reduction of GHGs. Under CEQA, an analysis and mitigation of emissions of GHGs and climate change in relation to a proposed project is required where it has been determined that a project will result in a significant addition of GHGs. Certain Air Pollution Control Districts (APCDs) have proposed their own levels of significance. The NSAQMD, which has regulatory authority over the air emissions from this Project, has not established a significance threshold.

**Executive Order S-3-05** Executive Order S-3-05 was established by Governor Arnold Schwarzenegger in June 2006 and establishes the following statewide emission reduction targets through the year 2050:

- by 2010, reduce GHG emissions to 2000 levels;
- by 2020, reduce GHG emissions to 1990 levels; and

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- by 2050, reduce GHG emissions to 80 percent below 1990 levels.

This Executive Order does not include any specific requirements that would pertain directly to the proposed Project. However, actions taken by the State to implement these goals may affect the Project, depending on the specific implementation measures that are developed.

**Assembly Bill 32** AB 32, also known as the California Global Warming Solutions Act of 2006, was established in 2006 to mandate the quantification and reduction of GHGs to 1990 levels by 2020. The law establishes periodic targets for reductions, and requires certain facilities to report emissions of GHGs annually. The bill also reserves the ability to reduce emissions targets lower than those proposed in certain sectors which contribute the most to emissions of GHGs, including transportation. Additionally, the bill requires:

- GHG emission standards to be implemented by 2012; and
- CARB to develop an implementation program and adopt GHG control measures “to achieve the maximum technologically feasible and cost-effective GHG emission reductions from sources or categories of sources.” CARB issued a draft Climate Change Scoping Plan in December 2008.

The Assembly Bill 32 Scoping Plan contains the main strategies California will use to reduce the GHG that cause climate change. The scoping plan has a range of GHG reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 cost of implementation fee regulation to fund the program.

**Nevada County General Plan**

As part of the General Plan, Nevada County (1995) has adopted Goal EP-4.3 intended to improve greenhouse gas emissions.

**GOAL EP 4.3** To the extent feasible, encourage the reduction of Greenhouse Gas emissions during the design phase of construction projects. (Chapter 4: Circulation, Volume 1, Nevada County General Plan, 1995)

**Placer County Air Pollution Control District**

**Rule 517 Permitting Requirements for Stationary Sources Emitting Greenhouse Gases**

**101 Purpose:** The purpose of this rule is to: (1) ensure that any stationary source that has the potential to emit greenhouse gases at levels above applicable thresholds (i.e. 7,000 tons/year) complies with the requirements of several other federal rules (Rule 507, Federal Operating Permit Program, Rule 511, Potential to Emit, and Rule 512, Request for Synthetic Minor Source Status) as applicable; and (2) establish federally enforceable limits on greenhouse gases for stationary sources that elect to comply with such limits in lieu of obtaining a Part 70 permit that is otherwise required.

### **3.7.3 Impact Analysis**

#### **Methods**

Greenhouse gas emissions associated with the proposed Project were estimated using CO<sub>2</sub> emissions as a proxy for all greenhouse gas emissions. This is consistent with the current reporting protocol of the California Climate Action Registry (CCAR). Calculations of greenhouse gas emissions typically focus on CO<sub>2</sub> because it is the most commonly produced greenhouse gas in terms of both number of sources and volume generated, and because it is among the easiest greenhouse gases to measure. However, it is important to note that other greenhouse gases have a higher global warming potential than CO<sub>2</sub>. For example, one pound of methane has an equivalent global warming potential of 21 lbs of CO<sub>2</sub> (CCAR, 2009). Nonetheless, emissions of other greenhouse gases from the proposed Project (and from almost all greenhouse gas emissions sources) would be low relative to emissions of CO<sub>2</sub> and would not contribute significantly to the overall generation of greenhouse gas from the proposed Project.

The primary sources of Project-related greenhouse gas emissions are anticipated to be combustion of fossil fuels from the operation of internal combustion engines used during Project construction (portable equipment, off road equipment, and vehicles). CO<sub>2</sub> emissions during Project operation are expected to be low and will primarily be associated with vehicles and equipment associated with operations and maintenance of the Combie Canal.

The following Project components have the potential to impact greenhouse gas emissions:

- Temporary Construction Activities - Including transportation related emissions
- Combie Canal Operations - Including transportation related emissions
- Predicted Project emissions are well below CARB Maximum allowable CO<sub>2</sub> Emissions levels.

The proposed Project activities will take multiple construction seasons to complete. These construction seasons will occur during low flow periods (October-April). In order to analyze air emissions for the Project, 2011-2014 were evaluated. While these may not be the exact years of construction, the emissions analysis should not significantly change and the analysis presented below represents the Project related emissions.

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Table 3-7.1  
**NID Combie Canal Phase 1 Pipeline Replacement Project**  
**URBEMIS Carbon Dioxide Emissions Estimates**

Project Component	2011	2012	2013	2014	Total 2011-2014
Total Construction Source CO2 Emission Estimates (tons/year unmitigated)	98.30	412.74	488.86	424.21	1424.11
Total Area Source CO2 Emission Estimates (tons/year, unmitigated)	0.25	0.25	0.25	0.25	1.00
Total Operational (Vehicle) CO2 Emission Estimates (tons/year, unmitigated)	0.06	0.06	0.06	0.06	0.24
<b>Total Project CO2 Emission Estimates of construction, area, and operational emissions (tons/year, unmitigated)</b>	<b>98.61</b>	<b>413.05</b>	<b>489.17</b>	<b>424.52</b>	<b>1,425.35</b>
<b>CARB Maximum allowable CO2 Emissions (metric tons/year)</b>	<b>7000</b>	<b>7000</b>	<b>7000</b>	<b>7000</b>	<b>7000</b>

Table 3-7.1 and the section below discuss the potential Project impacts relative to greenhouse gas emissions issues.

Table 3-7.2  
**CEQA Checklist for Assessing Project-Specific Potential Greenhouse Gas Emissions Impacts**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
<b>VII. GREENHOUSE GAS EMISSIONS -- Would the Project:</b>				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

**Finding: Less than Significant with Mitigation Incorporated**

Predicted Project emissions are well below CARB maximum allowable CO<sub>2</sub> emissions levels. The proposed Project will not generate greenhouse gas emissions levels that either directly or indirectly have significant impacts on the environment because of low Project CO<sub>2</sub> emission estimates. Therefore, since the total Project CO<sub>2</sub> emission estimates were well below the CARB maximum allowable CO<sub>2</sub> emissions, and with the implementation of mitigation measure GHG-01, potential greenhouse gas emissions impacts are considered less than significant with mitigation incorporated.

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

**Finding: Less than Significant with Mitigation Incorporated**

The proposed Project will not generate additional greenhouse gas emissions that would conflict with an applicable plan, policy or regulations adopted for the purpose of reducing the emissions of greenhouse gases. Mitigation Measure GHG-01 will ensure that minimum performance standards for construction and transportation related emissions will be met. Total Carbon Dioxide (CO<sub>2</sub>) levels predicted to be emitted from construction, area, and operational emissions totaled 1425.35 tons/year. This CO<sub>2</sub> estimate is much lower than CARB's thresholds 7000 metric tons of CO<sub>2</sub> per year. Therefore, with the total Project CO<sub>2</sub> emission estimates well below the CARB maximum allowable CO<sub>2</sub> emissions and implementation of mitigation measure GHG-01, potential greenhouse gas emissions impacts are considered to be less than significant with mitigation incorporated.

**Mitigation Measure GHG -01: Greenhouse Gas Emissions Control Program**

Nevada Irrigation District (NID) shall create a Greenhouse Gas Emissions Control Program and require that the selected contractor and post-construction Combie Canal operations staff implement a greenhouse gas emissions control program prior to, during, and after construction. The following will be conducted throughout the construction period to limit and control greenhouse gas emissions:

- Construction workers will be encouraged to carpool to the Projects site or encourage construction worker commuters to carpool or employ other means to reduce trip generation.
- Unnecessary construction vehicle and equipment idling shall be minimized and vehicle and equipment idling shall not be allowed to exceed five minutes. Construction foremen shall include briefing to crews on vehicle use as part of pre-construction conferences. These briefings shall include discussion of best management construction practices to avoid unnecessary emissions (e.g., trucks and vehicles in loading and unloading queues would turn their engines off when not in use).
- All off-road construction diesel engines shall meet Tier 2 California Emission Standards for Off-Road Compression-Ignition Engines.
- Ensure compliance with all Rules and Regulations of Environmental Protection Agency (EPA), California Air Resources Board (CARB), and the Nevada and Placer County General Plan in relation to Greenhouse Gas emissions.

**Mitigation Measure GHG-01 Implementation**

**Responsible Party:** NID shall create a Greenhouse Gas Emissions Control Program and require that the selected contractor and post-construction Combie Canal operations staff implement a greenhouse gas emissions control program prior to, during, and after construction.



**Timing:** A Greenhouse Gas Emissions Control Program must be prepared and approved by NID prior to construction and implemented during and after construction.

**Monitoring and Reporting Program:** During construction, regular inspections will be performed by a NID representative and reports will be kept on file by NID for inspection by the CARB or other interested parties.

**Standards for Success:** Greenhouse Gas emissions are kept to the lowest practicable level. The goal is to minimize greenhouse gas emissions during and after construction.

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**3.8 HAZARDS AND HAZARDOUS MATERIALS****3.8.1 Regulatory Setting**

A hazardous material is defined by the California EPA, Department of Toxic Substances Control (DTSC), as a material that poses a significant present or potential hazard to human health and safety or the environment if released because of its quantity, concentration, or physical or chemical characteristics (26 California Code of Regulations 25501). For the purposes of this analysis, hazardous materials include raw materials and material remaining on-site as a result of past activities. Applicable regulations and policies considered relevant to the proposed Project are summarized below.

**Federal Regulations**

The principal federal regulatory agency responsible for the safe use and handling of hazardous materials is the U.S. EPA. Two key federal regulations pertaining to hazardous wastes are described below. Other applicable federal regulations are contained primarily in Titles 29, 40, and 49 of the Code of Federal Regulations.

*Resource Conservation and Recovery Act*

The Resource Conservation and Recovery Act enables U.S. EPA to administer a regulatory program that extends from the manufacture of hazardous materials to their disposal, thus regulating the generation, transport, treatment, storage, and disposal of hazardous waste at all facilities and sites in the nation.

*Comprehensive Environmental Response, Compensation, and Liability Act*

The Comprehensive Environmental Response, Compensation, and Liability Act, also known as Superfund, was passed to facilitate the cleanup of the nation's toxic waste sites. In 1986, the Superfund was amended through the Superfund Amendment and Reauthorization Act Title III (community right-to-know laws). Title III states that past and present owners of land contaminated with hazardous substances can be held liable for the entire cost of the clean up, even if the material was dumped illegally when the property was under different ownership.

**State Regulations**

California regulations are equal to, or more stringent than, federal regulations. U.S. EPA has granted the State of California primary oversight responsibility to administer and enforce hazardous waste management to ensure that hazardous wastes are handled, stored, and disposed of properly to reduce risks to human health and the environment. Several key laws pertaining to hazardous wastes are discussed below.

*Hazardous Materials Release Response Plans and Inventory Act of 1985*

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The Hazardous Materials Release Response Plans and Inventory Act, also known as the Business Plan Act, requires businesses using hazardous materials to prepare a report that describes their facilities, inventories, emergency response plans and training programs. Hazardous materials are defined as raw or unused materials that are part of a process or manufacturing step. They are not considered to be hazardous waste. Health concerns pertaining to the release of hazardous materials, however, are similar to those relating to hazardous waste.

*Hazardous Waste Control Act*

The Hazardous Waste Control Act created the state hazardous waste management program, which is similar to, but more stringent than, the federal Resource Conservation and Recovery Act program. The act is implemented by regulations contained in Title 26 of the California Code of Regulations, which describes the following required aspects for the proper management of hazardous waste:

- Identification and classification;
- Generation and transport;
- Design and permitting of recycling, treatment, storage, and disposal facilities;
- Treatment standards;
- Operation of facilities and staff training; and
- Closure of facilities and liability requirements.

These regulations list more than 800 materials that may be hazardous and establish criteria for identifying, packaging, and disposing of them. Under the Hazardous Waste Control Act and Title 26, the generator of hazardous waste must complete a manifest that accompanies the waste from the generator to the transporter to the ultimate disposal location.

*Emergency Services Act*

Under the Emergency Services Act, the state developed an emergency response plan to coordinate emergency services provided by federal, state, and local agencies. Rapid response to incidents involving hazardous materials or hazardous waste is an important part of the plan, which is administered by the California Office of Emergency Services. The office coordinates the responses of other agencies, including the U.S. EPA, the California Highway Patrol, Regional Water Quality Control Boards, air quality management districts, and county disaster response offices.

*Other Laws, Regulations, and Programs*

Various other state regulations have been enacted that affect hazardous waste management, including:

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- Safe Drinking Water and Toxic enforcement Act of 1986 (Proposition 65), which requires labeling of substance known or suspected by the state to cause cancer; and
- California Government Code Section 65962.5, which requires the Office of Permit Assistance to compile a list of possible contaminate sites in the state.

State and federal regulations also require that hazardous materials sites be identified and listed in public records. These lists are:

- Comprehensive Environmental Response, Compensation, and Liability Information System
- National Priorities List for Uncontrolled Hazardous Waste Sites
- Resource Conservation and Recovery Act
- California Superfund List of Active Annual Workplan Sites
- Lists of state-registered underground and leaking underground storage tanks.

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**3.8.2 Impact Analysis**

All hazardous materials are currently regulated and controlled by CalEPA in a manner that minimizes risks of spills or accidents. Any hazardous materials used in the construction, start up, or operations of the Project, such as diesel for equipment, will be handled according to current practices. The potential for construction and operation related impacts from hazardous materials are qualified in Table 3-8 and discussed below.

Table 3-8  
**CEQA Checklist for Assessing Project Specific Potential Impacts Relative to Hazards and Hazardous Materials**

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
<b>VIII.</b>	<b>HAZARDS AND HAZARDOUS MATERIALS --</b>				
	Would the Project:				
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e)	For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f)	For a Project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

**Finding: Less than significant**

Temporary construction activities associated with the Project will involve the transport and use of limited quantities of miscellaneous hazardous substances including gasoline, diesel fuel, hydraulic fluid, solvents, and oils. These chemicals would be brought to the Project site, as well as transported along the roadways. Federal and state laws regulate the handling, storage and transport of these and other hazardous materials, as well as the mechanisms to respond and clean up any spills along local and regional roadways. Chemicals present on site or used for the Project will be handled by the contractor in accordance with applicable federal, state, and local regulations for hazardous substances. Therefore, the potential for impacts related to hazardous materials transport, use, or disposal is considered less than significant.

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

**Finding: Less than significant**

Temporary construction activities associated with the Project will involve the transport and use of hazardous materials including gasoline, diesel fuel, hydraulic fluid, solvents, and oils. Chemicals present on site or used for the Project will be handled by the contractor in accordance with applicable federal, state, and local regulations for hazardous substances, and any spills will be immediately cleaned up and disposed of in the appropriate manner. In addition, the Project site is not listed by any federal, state or local database that identifies known hazardous materials sites (DTSC, 2007 & EPA 2010). Therefore impacts are considered less than significant.

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

**Finding: No Impact**

The Project is not expected to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. The closest school to the Project site is Forest Lake Christian School, located approximately 0.78 miles away from the Project site. Furthermore, the Project does not involve operational activities that would result in hazardous emissions. Therefore, no impacts would occur.

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

**Finding: Less than significant**

A review of the U.S. EPA hazardous materials sites database did not identify the Project site as a known hazardous materials sites (DTSC, 2007 & EPA 2010). Therefore, this potential impact is considered less than significant.

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

**Finding: No impact**

The Project site is not located within an airport land use plan area (Airport Land Use Commission, 2007). No public or private use airports are located within two miles of the Project site. The Auburn Municipal Airport is the closest public airport to located approximately 3.5 miles south of the Project site. The closest private airport is the Alta Sierra Airport located approximately 7 miles north of the Project site. Lastly, the closest military airport to the Project site is the Beale Air Force Base located over 18 miles from the Project site. Therefore, no impact would occur.

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

**Finding: No impact**

See response to checklist item (e).

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

**Finding: Less than significant**

Access for all fire and police emergency response vehicles would be maintained on Combie Road, Table Meadow Road, Puma Road, Ramada Way, and Via del Sol Road throughout the construction period. Therefore, potential impacts to emergency, fire, and police response is less than significant.

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

**Finding: Less than significant with implementation of mitigation**

The Project site is surrounded by vegetation, trees, and shrubs and is located in a foothill riparian corridor populated by oak and pine trees. The risk of fire is always a possibility. Equipment used during trenching, grading and other construction activities may generate sparks that could ignite dry vegetation on or adjacent to the construction area and cause wild land fires in the upper Bear watershed and beyond. The Project site is in the jurisdiction of the Higgins Fire Protection District. The closest Higgins Fire Protection District fire station to the Project site is Station 21, located at

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10106 Combie Road in Auburn, CA. The steep topography in the area near the Project site could make fire-fighting difficult and put structures at risk. This risk of wild land fire is considered a potentially significant impact and requires mitigation. Risk of fire will be reduced to less than significant levels through implementation of Mitigation Measure HAZ-01.

**Mitigation Measure HAZ-01: Prepare Fire Suppression and Control Plan**

The NID will require the selected construction contractor to coordinate with the local fire chief and Nevada County to ensure a fire control plan is prepared and implemented to reduce the risk of fires being created during the proposed Project. The fire prevention and control plan will include: requirements for onsite extinguishers, roles and responsibilities of Nevada Irrigation District (NID) and the contractor, specifications for fire suppression equipment and other critical fire prevention and suppression items. This mitigation measure will be included in the plans and specifications bid for the Project.

**Mitigation Measure Implementation**

**Responsible Party:** NID would ensure that the construction contractor prepares a fire suppression plan.

**Timing:** Prior to construction

**Monitoring and Reporting Program:** The plan would be developed by the construction contractor and a copy would remain on file at the District Offices. In the event of any burn, the construction contractor will prepare an event report and submit it to the District.

**Standards for Success:** Fire prevention

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**3.9 WATER QUALITY AND HYDROLOGY**

The Project proposes to install 9,100 linear feet of dual pipes within the existing footprint of the Combie Phase 1 Canal and the addition of a 48-inch diameter parallel to the Bear River Siphon. The Combie Phase I Canal was built almost 40 years ago, and has experienced conditions of stress and reduced effectiveness over the decades. Upgrades to the canal are necessary for water supply reliability because failure risks associated with operation are too high.

**3.9.1 Environmental Setting**

The Nevada Irrigation District sustains roughly fifty percent of its agricultural demand and some municipal demand with the Combie Phase I Canal. The canal is located in Nevada County at approximately 1,550 feet in elevation. This canal is the primary conveyance mechanism for the District's water coming from Combie Reservoir and moving through the downstream conveyance infrastructure. The major surface water features next to the proposed Project is the Bear River. Bear River originates in the vicinity of Emigrant Gap and Lake Spaulding at the Sierra Nevada foothills and flows southwest until it meets with the Feather River upstream of the city of Nicolaus. Combie Reservoir is located on the Bear River in Placer County. Main tributaries to the Bear River are Greenhorn Creek, Wolf Creek, Rock Creek, and Dry Creek. Storage facilities along the river include Rollins Reservoir, Combie Reservoir, Camp Far West Reservoir, Dutch Flat Afterbay, and Drum Afterbay (Smithson et al. 2002). Combie Reservoir is located on the Bear River in Placer County. Bear River is listed as an impaired water body on the Clean Water Act (CWA) Section 303(d) list for mercury and diazinon (SWRCB).

**Local Water Quality****Groundwater**

Groundwater in the Sacramento Valley is generally in excellent condition. The California Department of Water Resources did not have any data on the ground water quality in this sub-basin. Groundwater supplied from the fractured rock sources of the Sierra Nevada Mountain Range are highly variable in terms of water quantity and water quality due to the many confined and unconfined groundwater layers (DWR 2003). The groundwater in the Sierra foothills has the potential for encountering uranium and radon-bearing rock or sulfide mineral deposits containing heavy metals (DWR 2003).

**3.9.2 Regulatory Setting****Federal Regulations****Clean Water Act**

The Clean Water Act (CWA) (33 U.S.C. Section 1251 et seq.), formerly the Federal Water Pollution Control Act of 1972, was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and

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certain non-point source discharges to surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). In California, NPDES permitting authority is delegated to, and administered by, the nine RWQCBs.

**National Flood Insurance Policy Act**

The Federal Emergency Management Agency (FEMA) is responsible for managing the National Flood Insurance Program (NFIP), which makes federally backed flood insurance available for communities that agree to adopt and enforce floodplain management ordinances to reduce future flood damage.

The NFIP, established in 1968 under the National Flood Insurance Act, requires that participating communities adopt certain minimum floodplain management standards, including restrictions on new development in designated floodways, a requirement that new structures in the 100-year flood zone be elevated to or above the 100-year flood level (known as base flood elevation). To facilitate identifying areas with flood potential, FEMA has developed Flood Insurance Rate Maps (FIRMs) that can be used for planning purposes, including floodplain management, flood insurance, and enforcement of mandatory flood insurance purchase requirements.

**Porter Cologne Water Quality Control Act**

The State of California established the State Water Resources Control Board (SWRCBs), which oversees nine Regional Water Quality Control Boards (RWQCB), through the Porter-Cologne Water Quality Control Act (Porter-Cologne). Through the enforcement of the Porter Cologne Act, the SWRCB determines the beneficial uses of the waters (surface and groundwater) of the State, establishes narrative and/or numerical water quality standards, and initiates policies relating to water quality. The SWRCB and, more specifically, the RWQCB, is authorized to prescribe Waste Discharge Requirements (WDRs) for the discharge of waste, which may impact the waters of the State. Furthermore, the development of water quality control plans, or Basin Plans, are required by Porter-Cologne to protect water quality.

**NPDES General Construction Permit**

The National Pollutant Discharge Elimination System (NPDES) was established per 1972 amendments to the federal Water Pollution Control Act, in order to control discharges of pollutants from point sources (Section 402). As described above, under "Federal," 1987 amendments to the Clean Water Act, created a new section of the Act devoted to storm water permitting (Section 402[p]), with individual States designated for administration and enforcement of the provisions of the Clean Water Act and the NPDES permit program. The State Water Resource Control Board (SWRCB) issues both General Construction Permits and individual permits under this program.

Projects disturbing more than one acre of land during construction are required to file a Notice of Intent (NOI) with the SWRCB to be covered under the State NPDES General Construction Permit for discharges of storm water associated with construction activity. The project proponent must implement control measures that are consistent with the State General Permit. A Storm Water Pollution Prevention Plan (SWPPP) must be developed and implemented for each site covered by



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the General Permit. A SWPPP describes Best Management Practices (BMPs) the discharger will use to protect storm water runoff and reduce potential impacts to surface water quality through the construction period. The SWPPP must contain the following: a visual monitoring program; a chemical monitoring program for “non-visible” pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment (SWRCB, 2006).

**3.9.3 Impact Analysis**

The potential for construction and operation related impacts to hydrology and water quality Project are qualified in Table 3-9 and discussed in detail below.

Table 3-9  
**CEQA Checklist for Assessing Project Specific Potential Impacts to Hydrology and Water Quality**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
<b>IX. HYDROLOGY AND WATER QUALITY –</b>				
Would the Project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there should be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Inundation of seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

**Finding: Less than significant with mitigation incorporated**

Construction of the proposed Project would result in soil disturbance that would temporarily increase the hazard of erosion and sedimentation. Additionally, maintenance of equipment would require the use of hazardous materials such as gasoline and engine oil, which, if spilled, could contaminate runoff and surface waters in the Project area vicinity. Discharge of sediment or hazardous material into surface waters during construction could result in violation of certain water quality standards. This impact is potentially significant and requires mitigation. Mitigation Measure HYD-01 will be implemented to minimize the potential for contaminants to enter Bear River as a result of construction activity, reducing impacts to a less than significant level.

**Mitigation Measure HYD-01: Avoid/Minimize Potential Impacts from Construction Material Release.**

Prior to construction, the contractor shall develop a Spill Prevention and Contingency Plan for any grading activities that impact greater than one acre.

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Containment and cleanup equipment (e.g., absorbent pads, mats, socks, granules, drip pans, shovels, and lined clean drums) will be at the staging areas and construction site for use, as needed.

Staging areas where refueling, storage, and maintenance of equipment occur will not be located within 100 feet of drainages to reduce the potential for contamination by spills.

Construction equipment will be maintained and kept in good operating condition to reduce the likelihood of line breaks or leakage.

No refueling or servicing will be done without absorbent material (e.g. absorbent pads, mats, socks, pillows, and granules) or drip pans underneath to contain spilled material. If these activities result in an accumulation of materials on the soil, the soil will be removed and properly disposed of as hazardous waste.

If a spill is detected, construction activity will cease immediately and the procedures described in the Spill Prevention and Contingency Plan will be immediately enacted to safely contain and remove spilled materials.

Spill areas will be restored to pre-spill conditions, as practicable.

Spills will be documented and reported to the District an appropriate resource agency personnel.

**Mitigation Measure HYD-01 Implementation**

**Responsible Party:** NID will require the construction contractor develop and implement erosion control BMPs and a Spill Prevention and Contingency Plan for all activities in the vicinity of drainages. For grading activities impacting larger than one acre, a SWPPP will also be developed.

**Timing:** The BMPs and Plans will be implemented prior to and during all phases of construction.

**Monitoring and Reporting:** Evaluation of BMPs and Spill Prevention and Contingency Plan (and SWPPP) will be conducted by the District. Reports of spills will be documented and kept on file at the District office.

**Standard of Success:** Prevention of construction material spills in Bear River.

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

**Finding:** Less than significant

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Implementation of the proposed Project would not deplete groundwater supplies or interfere with groundwater recharge resulting in groundwater loss. The proposed Project will not require the use of any groundwater during construction or operation. The impact would be less than significant.

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

**Finding: Less than significant with mitigation incorporated**

Grading, trenching, and other earthwork result in soil disturbance that could temporarily alter minor drainage patterns and increase the hazard of erosion and sedimentation. Implementation of erosion control best management practices GEO-01 would minimize the potential for the proposed Project to substantially alter the existing drainage pattern of the site or area, reducing impacts to a less than significant level.

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

**Finding: Less than significant with mitigation incorporated**

The proposed Project will not significantly alter drainage patterns of Bear River or any tributaries leading to Bear River. Implementation of best management practices in regards to erosion control measure would minimize the potential for the proposed Project to substantially alter the amount of surface water runoff in a manner that would result in flooding on or off-site. Mitigation Measure GEO-01 will be implemented to minimize the potential for the existing drainage pattern of the site to be altered that would result in flooding, reducing impacts to a less than significant level.

- e) ***Would the Project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?***

**Finding: Less than significant with mitigation incorporated**

The proposed Project could provide substantial additional sources of polluted runoff during construction of the canal. Implementation of best management practices and Mitigation Measure HYD-02 will be implemented to minimize the potential for polluted runoff due to the Project, reducing impacts to less than significant.

**Mitigation Measure HYD-02: Develop or use current Spill Prevention Control and Countermeasure Plan.**

- NID or its contractor will develop and implement a Spill Prevention Control and Countermeasure Plan (SPCCP) to minimize the potential for, and effects from, spills of hazardous, toxic, or petroleum substances during construction activities for all contractors.

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- NID will review and approve the SPCCP before onset of construction activities. NID will routinely inspect the construction area to verify that the measures specified in the SPCCP are properly implemented and maintained. NID will notify its contractors immediately if there is a noncompliance issue and will require compliance.
- The federal reportable spill quantity for petroleum products, as defined in the EPA's CFR (40 CFR 110) is any oil spill that (1) violates applicable water quality standards, (2) causes a film or sheen upon or discoloration of the water surface or adjoining shoreline, or (3) causes a sludge or emulsion to be deposited beneath the surface of the water or adjoining shorelines.
- If a spill is reportable, the NID or the contractor would take action to contact the appropriate safety and clean-up crews to ensure the SPCCP is followed. A written description of reportable releases must be submitted to the Regional Water Quality Control Board (RWQCB). The submittal must include a description of the release, including the type of material and an estimate of the amount spilled, the date of the release, an explanation of why the spill occurred, and a description of the steps taken to prevent and control future releases. The releases would be documented on a spill report form.

**Mitigation Measure HYD-02 Implementation**

**Responsible Party:** NID or its contractor will develop and implement a Spill Prevention Control and Countermeasure Plan (SPCCP) to minimize the potential for, and effects from, spills of hazardous, toxic, or petroleum substances during construction activities for all contractors.

**Timing:** The SPCCP will be implemented prior to and during all phases of construction.

**Monitoring and Reporting:** Evaluation of SPCCP will be conducted by the District. Reports of on the SPCCP implementation will be documented and kept on file at the District office.

**Standard of Success:** Minimize the potential for, and effects from, spills of hazardous, toxic, or petroleum substances during construction activities for all contractors.

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

**Finding: No impact would occur because the Project does not involve housing**

The Project does not include the construction of housing, nor would it place housing in a 100-year flood hazard area. No impact would occur.

**h) *Would the Project Place within a 100-year flood hazard area structures which would impede or redirect flood flows?***

**Finding: Less than significant**

The FEMA flood Insurance Rate Map (2010) for the Project location designates the Combie Canal as not occurring within a flood zone. The area directly to the west of Bear River is considered part of the 100 year flood zone, however, the Canal is located on the east side of the river, and upslope.



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Construction of the Bear River Siphon will occur across the Bear River and in the 100-year flood zone. However, construction of the siphon will not impede or redirect flows in this area. In addition, the proposed Project would not expose people to loss, injury, or death involving flooding. These impacts are considered less than significant.

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

**Finding: Less than significant**

The proposed Project would not expose people to loss, injury, or death involving flooding. These impacts are considered less than significant.

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

**Finding: Less than significant**

The Project's inland location makes the risk of tsunami negligible. The probability of a seiche occurring in Nevada County is considered minimal. Furthermore, given the geologic context of the Project, if such an event were to occur, the likelihood of it exposing Project structures or people to a significant risk of injury or death is considered low. Finally, the geologic materials underlying the Project area are generally not associated with mudslides; therefore, there is little or no risk of mudflow. Therefore, impacts are considered less than significant.

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**3.10 LAND USE PLANNING**

**3.10.1 Environmental Setting**

The Project is situated within the land management plans and policies dictated by the Nevada and Placer County General Plan and the Nevada and Placer County Zoning Ordinance. This Initial Study considers the goals of these plans and ordinances and their application to the proposed Combie Canal Phase I Pipeline Replacement Project. The Project is in Nevada and slightly in Placer County parallel to and adjacent the Bear River cut into a south facing slope. The Project spans across more than fifteen parcels with varying land use and zoning designations (see below). The canal is operated through an NID right of way easement across the properties where necessary. Zoning designations for properties the Project will impact include Public – Mineral Extraction Combining (P-ME), General Agriculture – Planned Development: 10-acre minimum parcel size (AG-10-PD), Residential Agriculture: 5-acre minimum parcel size (RA-5), Residential Agriculture – Planned development: 3-acre minimum parcel size (RA-3-PD).

The Project is not subject to local zoning regulations, pursuant to California Government Code Section 53091. The Project has taken General Plan and Zoning goals, objectives, and regulations into consideration during the planning stages. The replacement infrastructure will be placed within the existing infrastructure and the parallel siphon is planned to be placed well above the flood plain, riparian zone and ordinary highwater mark of the Bear River. This design was selected to avoid and minimize environmental impacts, including impacts to wetlands or other jurisdictional waters of the United States.

**3.10.2 Regulatory Settings**

The General Plan sets several goals and policies to guide development and protection of water infrastructure. This Project seeks to increase the reliability and efficiency of this infrastructure. The Project will comply with the goals and policies of the Chapter 11 Water Element and Chapter 16 Agriculture Element of the Nevada County General Plan. These goals are as follows:

- GOAL 11.1** Identify, protect and manage for sustainable water resources and riparian habitats.
- Policy 11.2** Encourage the protection of resources which produce water for domestic and agricultural consumption.
- Goal 16.3** Provide for and protect agricultural water supplies.
- Policy 16.15b** Encourage the Nevada Irrigation District and the Nevada County Resource Conservation District in their efforts to implement water conservation and greater efficiency of water use by agricultural as well as urban users through measures such as continued efforts to line existing canals

**Placer County General Plan**

- Goal 1.A:** To promote the wise, efficient, and environmentally-sensitive use of Placer County lands to meet the present and future needs of Placer County residents and businesses.

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**Goal 1.F:** To designate adequately-sized, well-located areas for the development of public facilities to serve both community and regional needs.

**3.10.3 Impact Analysis**

The potential land use and planning related impacts for the Project are summarized in Table 3-10 and discussed below.

Table 3-10  
**CEQA Checklist for Assessing Project-Specific Potential Impacts to Land Use Planning**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
<b>X. LAND USE AND PLANNING -- Would the Project:</b>				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural communities' conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

**Finding: No impact**

The proposed Project would replace an existing water conveyance canal structure with a functionally equivalent sub-grade pipe structure along the same route and profile as the existing structure in unincorporated Nevada and Placer County from the base of the Combie Dam to the Bear River Siphon. It would include a new aerial pipe support structure adjacent to and having approximately the same size and dimension as the existing aerial pipe support structure. There are very few residences in the Project vicinity. The proposed Project would not physically divide any established community; there would be no impact.

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

**Finding: Less than Significant Impact**

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The Project would not conflict with any land use plans, policies, or regulations that are applicable to the Project. No change in land use is proposed or required and none would result from the implementation of the proposed Project. As discussed in section 2.4 Agency Approvals of this document, the Project may be subject to reviews by agencies with jurisdiction over the proposed aerial crossing of the Bear River, however this solution was selected to avoid significant impacts under these regulations and therefore the impacts are believed to be less than significant.

**c) *Would the Project conflict with any applicable habitat conservation plan or natural communities' conservation plan?***

**Finding: No impact**

There are no habitat conservation plans or natural communities conservation plans that apply to the Project site. Therefore, it would not conflict with any such plan and there would be no impact. Impacts to sensitive species, riparian habitats, etc. are discussed in the Biological Resources section of the IS/MND.

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**3.11 MINERAL RESOURCES****3.11.1 Environmental Setting**

Nevada County has significant mineral resources, including gold, which have played a major role regionally, across the State, and nationally. The State of California enacted the Surface Mining and Reclamation Act (SMARA) in 1975 in part to identify the location of and preserve access to significant mineral deposits. The state geologist is required to prepare maps identify Mineral Resource Zones (MRZ) including areas of presence or likely presence of significant mineral deposits (MRZ-2). Additionally, SMARA requires local governments to evaluate the presence of mineral resources in their General Plans and when making land use decisions. Nevada County's General Plan (NCGP, 1995) includes Goal 17.1 which states, "Recognize and protect valuable mineral resources for current and future generations in a manner that does not create land use conflicts." Significant mineral resources in the County include gold (in various forms), silver, copper, zinc, lead, chromite, tungsten, manganese, barite, quartz, limestone, asbestos, clay, mineral paint, sand, gravel, and rock (NCGP, 1995). The mineral resources are most concentrated in the western half of the County; however, the majority of the mineral resource areas are north of the Project area and near the South Yuba River and Deer Creek valleys. Moreover, there are no MRZ identified within five miles of the Project area (NCGP, 1995). Although there is no identified MRZ in the area, the Project area near the Combie Dam is zoned for the combined use of Public and Mineral Extraction (NCGP, 1995). However, the Project will not cause a material change in the availability of mineral resources beyond current conditions.

**3.11.2 Regulatory Setting****Placer County General Plan****Policies**

- Policy 1.J.1.** The County shall require new mining operations to be designed to provide a buffer between existing or likely adjacent uses, minimize incompatibility with nearby uses, and adequately mitigate their environmental and aesthetic impacts.
- Policy 1.J.2.** The County shall require that new non-mining land uses adjacent to existing mining operations be designed to provide a buffer between the new development and the mining operations. The buffer distance will be based upon an evaluation of noise, aesthetics, drainage, operating conditions, topography, lighting, traffic, operating hours and air quality.
- Policy 1.J.3.** The County shall discourage the development of any uses that would be incompatible with adjacent mining operations or would restrict future extraction of significant mineral resources.



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3.11.3 Impact Analysis

The potential impacts to mineral resources are addressed in Table 3-11 and analyzed below.

Table 3-11

CEQA Checklist for Assessing Project-Specific Potential Impacts to Mineral Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
<b>XI. MINERAL RESOURCES --</b> Would the Project:				
a) Result in the loss of availability of a known mineral resource classified MRZ-2 by the State Geologist that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) *Would the Project result in the loss of availability of a known mineral resource classified MRZ-2 by the State Geologist that would be of value to the region and the residents of the state?***

**Finding: No impact**

There is no mineral source classified as MRZ-2 located at or near the Project site. Therefore, the Project would not cause the loss of availability of known mineral resources. No impact would occur.

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

**Finding: No impact**

The Project area contains no known mineral resources of local importance, based on maps presented in the Nevada County General Plan (NCGP, 1995) and the Placer County General Plan. Portions of the Project near Combie Dam are zoned for combined use that includes mineral extraction; however, no mineral resource site is identified in this vicinity, and the Project would not alter current conditions, with respect to mineral availability. Therefore, the Project would not cause the loss of availability of locally important minerals. No impact would occur.

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**3.12 NOISE**

**3.12.1 Environmental Setting**

The Project area lies within Nevada and Placer County and is subject to the requirements established by Nevada and Placer County. The primary goal of the noise element is to protect noise sensitive uses and residential areas from potential conflicts with transportation and stationary noise sources. The counties have implemented noise standards for outside areas surrounding noise sensitive uses such as residential and commercial areas. Maximum allowable noise levels for residential and noise sensitive use areas are between 55 and 75 decibels (dBA) between the hours of 7 am and 7 pm for both rural and residential/public land use categories.

The Project area is rural in nature, and it is anticipated that noise levels in the Project area range from 40 to 50 dBA. The noise environment near the Project site consists of the flowing of water in Bear River, the chirping of birds, and other rural sounds. Noise sensitive land uses near the Project area include scattered single-family residences. In some locations residences are located approximately 60 feet from the Project site.

**3.12.2 Impact Analysis**

Potential noise impacts from construction activities area addressed in Table 3-12 and discussed below.

Table 3-12

**CEQA Checklist for Assessing Project-Specific Potential Noise Impacts**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
<b>XII. NOISE -- Would the Project result in:</b>				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport of public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a Project within the vicinity of a private airstrip, would the Project expose people residing or working in the Project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

**Finding: Less than significant with mitigation incorporated**

The construction of the proposed Combie Phase I Canal Replacement Project would entail the use of construction related equipment, haulers, excavators, etc. over multiple construction seasons, primarily between October and April (the non-irrigation season), with site preparation occurring in the summers. Noise impacts associated with Project construction would result in temporary or periodic increases in ambient noise levels, especially during grading and trenching/tunneling activities. Construction noise would result from operation of machinery and equipment used in the construction process.

Noise from construction typically attenuates at a rate of 6 dB per doubling of distance. Additional attenuation of approximately 1-2 dB per doubling of distance also occurs where the ground is acoustically absorptive, where vegetation covers the ground. Assuming a nominal worst-case construction noise-level of 92 dBA at 50 feet for several pieces of equipment operating simultaneously, construction noise can be expected to be as high as the following levels at various distances from the construction activity:

- 92 dBA-Lmax at 50 feet
- 84 dBA-Lmax at 100 feet
- 77 dBA-Lmax at 200 feet
- 69 dBA-Lmax at 400 feet
- 62 dBA-Lmax at 800 feet
- 54 dBA-Lmax at 1,600 feet

**Mitigation Measure NOISE-01: Noise Reduction Measures**

NID will incorporate the following BMPs to minimize noise impacts during construction activities.

- Construction will be limited to daytime hours between 7:00 a.m. and 7:00 p.m. on weekdays and Saturdays and Sundays.
- All construction equipment will be equipped with sound-control devices no less effective than those provided on the original equipment. Equipment will have a muffled exhaust.
- Appropriate additional noise-reducing measures will be implemented, including but not limited to:
  - Changing the location of stationary construction equipment when practical,
  - Shutting off idling equipment, and
  - Notifying nearby residents 48 hours in advance of starting construction in an area not previously affected by recent construction activities.

**Mitigation Measure NOISE-01 Implementation**

**Responsible Party:** NID's contractor shall adhere to the construction schedule and noise mitigation measures.

**Timing:** During all phases of construction.

**Monitoring and Reporting:** NID's Construction Manager shall document all after hour work that generates noise louder than background.

**Standard of Success:** Minimize neighbor's noise complaints and reduce noise impacts to wildlife.

Construction activities would occur during the daytime hours between 7:00 a.m. and 7:00 p.m. With the implementation of the Mitigation Measure NOISE-01, the potential noise impacts are expected to be less than significant.

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

**Finding: Less than significant**

Construction equipment used during the Project such as backhoes, mechanical compactors, and other equipment may generate localized ground borne vibration or noise levels. However, vibration from construction activity is typically below the threshold of perception when the activity is more than about 50 feet from the receiver. Furthermore, potential ground borne vibrations or noise would

be temporary and would occur during daylight hours. Therefore, ground borne noise and vibration impacts are considered less than significant.

- c) *Would the Project result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?***

**Finding: less than significant**

The operation of the Project will be similar to existing operations and quieter than the spilling dam. The Project is not expected to cause a permanent increase in ambient noise levels. There would be a less than significant impact on noise levels associated with operation of the proposed Project.

- d) *Would the Project result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?***

**Finding: Less than significant**

Construction activities of the proposed Project would result in temporary increases in noise above existing levels. However, construction activities would occur between the hours of 7:00 a.m. and 7:00 p.m. and are exempted from the Counties' noise elements and noise ordinances. Therefore, this impact is considered less than significant.

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

**Finding: No impact**

The proposed Project area is not located within an airport land use plan, or within two miles of a public airport. The Auburn Municipal Airport is the closest public airport to located approximately 3.5 miles south of the Project site. The closest private airport is the Alta Sierra Airport located approximately 7 miles north of the Project site. Lastly, the closest military airport to the Project site is the Beale Air Force Base located over 18 miles from the Project site. The Project will not expose sensitive receptors to excessive noise levels from airport/aircraft operations. Therefore, no impacts are anticipated.

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

**Finding: No impact**

See part e above. No impacts are anticipated.



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**3.13 POPULATION AND HOUSING**

**3.13.1 Environmental Setting**

The Project site is located in Nevada and Placer Counties approximately two miles south of the Lake of the Pines community, and about two miles west of the community of Meadow Vista in Placer County. At approximately 1,550 feet in elevation, the Combie Phase I Canal extends approximately 9,100-feet in length and serves as the primary mechanism for the District's water coming from the Combie Reservoir, including water for Lake of the Pines and North Auburn communities. The Project site is not located in a residential zone, and no homes or residences exist on the Project site.

**3.13.2 Regulatory Setting**

**Nevada County General Plan**

The Project is located in Nevada County and would therefore be governed by the County's General Plan. The Nevada County General Plan (1995, 2009) includes the following specific objectives and policies that are applicable to the proposed Project as it relates to population and housing:

**Objective 1.6** Maintain a land use pattern based upon criteria that establish the amount of land use types necessary to meet the needs of the population/employment levels, while recognizing the unique character of each *Community Region*.

**Policy 1.22** The General Plan shall provide for population densities in the respective land use designation based upon the maximum number of dwelling units or persons per acre for the minimum parcel area per dwelling.

**GOAL RC-8.1** Decrease governmental constraints and streamline the processing of housing development to expedite development of affordable housing and reduce the costs of development without compromising other General Plan objectives.

**GOAL RC-8.2** Mitigate non-governmental constraints on the maintenance, improvement, and development of housing to the extent possible.

**GOAL HD-8.1** To provide for a variety of housing types by tenure and price in all residential areas for all income segments, special needs groups, and the County's workforce for both existing Nevada County residents, as well as potential future residents, commensurate with the Regional Housing Need Allocation (RHNA) Plan and the County's quantified objectives.

**GOAL HD-8.3** Ensure that appropriate types and higher density housing development are directed to Community Regions and Rural Centers.

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(Chapter 1 Land Use (1995) and Chapter 8 Housing (2009), Volume 1, Nevada County General Plan)

Placer County General Plan

**Goal 2.A:** To provide a continuing supply of affordable housing to meet the needs of existing and future Placer County residents in all income categories.

3.13.3 Impact Analysis

The potential impacts to population and housing are qualified in Table 3-13 and discussed below.

Table 3-13  
CEQA Checklist for Assessing Project-Specific Potential Population and Housing Impacts

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
<b>XIII. POPULATION AND HOUSING -- Would the Project:</b>				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

**Finding: Less than significant with mitigation incorporated**

The proposed Project is to upgrade the existing Combie Phase I Canal and eliminate potential dangerous failure risks at times when operation flows are high. These upgrades address service issues caused by current flows in the District’s service area. The Project entails an effective decrease from the current canal capacity of 200 cfs to an unpressurized pipe capacity of 180 cfs. The upgrades are needed now for safety and security reasons and cannot wait until future Projects or growth trigger the need for improvements and capacity increases. That said, NID must be forward thinking and size the infrastructure in an appropriate manner. As a result, the Project is sized to meet

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the potential of 300 cfs demands IF (ONLY IF) PRESSURIZED AND CONNECTED TO THE OUTLET ON THE SOUTH SIDE OF THE DAM. This Project does not include these actual capacity increases because the purpose of the Project is to address the failing canal and not increase capacity. Any increases above 200 cfs will require a connection to the south dam outlet and sealed pressurized pipe. Such changes are currently not part of NID's plans in the reasonably foreseeable future and therefore are not included in the proposed Project; however, they are addressed in the Cumulative Impacts Section in Mandatory Findings Below.

The proposed Combie Phase I Canal Replacement Project will not contribute to significant cumulative indirect growth impacts in the region. Presently, the canal is designed to convey a maximum flow of 200 cfs. The pipeline replacement would allow the District to meet the ultimate needs of the systems requiring delivery of up to 300 cfs to various points of discharge downstream. Currently, the gravity fed design only allows 180 cfs to flow through the system. The proposed replacement of the Combie Phase I Canal is to rectify current reliability and safety issues; however, it has been designed to accommodate future land use development and growth in accordance with the adopted general plans for the land use jurisdictions within its service area. The local jurisdictions regulate land use growth, and the location of development; land use decisions do not lie within the authority of NID. In this sense, the replacement of the Canal represents an accommodation to growth in compliance with Nevada and Placer County policies for provisions of superior levels of facilities and services prior to or concurrent with planned development. The local jurisdictions regulate land use planning through the adoption of general plans, zoning regulations, and pertinent amendments. It is possible that the local jurisdiction could rezone and amend their currently adopted general plan and thereby influence higher or lower levels of growth. NID could then implement expansion of a faster or slower basis to accommodate the actual levels of growth.

On this particular Project, increases in capacity cannot be implemented without the addition of a penstock connection to the southern outlet on the Combie dam and the pressurization of pipe. Therefore, although the Project is designed to accommodate future growth, it does not entail the two design aspects necessary to actually increase the capacity. If the added capacity is needed, such increases will be fully addressed in a future CEQA document.

Therefore, due to the fact that there have been three failures, the walls are failing and need to be tied back and monitored monthly, the current Project is immediately necessary to improve safety, increase reliability, and reduce the risk of failure impacts to the Bear River.

If in the future, the Board deems it necessary to increase the conveyance capacity in the Project by sealing the pipes and adding the South Combie penstock to meet demands for a regional water treatment plant, delivery of water to PCWA, or other use, NID will need to complete an additional CEQA document for said Project. At this time a regional Project or a need for increased capacity is not in the reasonably foreseeable future and yet the Combie Phase I canal must be upgraded to address current safety and reliability issues.

Although the Project purpose is to improve safety and security, the upgrades to the existing infrastructure does indirectly facilitates the extension of other public infrastructure (i.e. the ability to eventually up the capacity to 300 cfs); therefore, this impact is considered potentially significant. The mitigation to reduce this impact to less than significant levels is included in the Project design

and reiterated here to ensure its inclusion in the MMRP. Impacts are considered less than significant with mitigation incorporated.

**Mitigation Measure POP-01: Design the Project with a Maximum Capacity of 180 cfs**

The Project will not include a connection to the south side Combie dam outlet and/or pressurize the pipes to increase flows into the system beyond the planned 180 cfs capacity. In the future, if the system experiences increases in demand and upgrades are needed, NID will comply with CEQA and analyze the cumulative impacts of such increases in conjunction with the current Project.

**Mitigation Measure POP01 Implementation**

**Responsible Party:** NID shall design the Project so that flows are maximized at 180 cfs.

**Timing:** During design

**Monitoring and Reporting:** NID shall present their plans during the bid process.

**Standard of Success:** Design a Project that meets the Project safety objectives without unnecessarily increasing capacity before necessary.

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

**Finding: No impact**

No homes or residences located in the Project footprint of the Combie Canal Phase I Replacement Project, nor is the Project area within a residential zone. The Project will not displace any existing housing or necessitate the construction of replacement housing elsewhere. No impact would occur.

**c) *Would the Project displace substantial numbers of people necessitating the construction of replacement housing elsewhere?***

**Finding: No impact**

No homes or residences located in the Project footprint of the Combie Canal Phase I Replacement Project, nor is the Project area within a residential zone. The Project will not displace any people or necessitate the construction of replacement housing elsewhere. No impact would occur.

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**3.14 PUBLIC SERVICES**

**3.14.1 Environmental Setting**

Services are typically provided by fire districts, park districts, public utility districts, school districts, sewer districts, water districts, and other single purpose districts in addition to those provided by both Counties and any federal and state agencies.

Fire protection in the Project area is provided by the Nevada County Consolidated Fire District (NCCFD), and police protection is under the jurisdiction of the Nevada County Sheriff's Office. There are no schools or parks that exist in the proposed Project area. Other public facilities and services within the Project area include those owned and operated by NID such as the Combie Reservoir, which provides recreational activities. NID supplies water for irrigation, municipal, domestic, and industrial purposes for the western region of Nevada County, where the Project area is located. For additional information regarding the Public Services and Facilities in Nevada County in the proposed Project area refer to Chapter 3, Public Facilities and Services, of the Nevada County General Plan (Nevada County 1995) and Placer County General Plan.

**Fire Protection**

The closest full time staffed fire station to the Project area is Station 89 of the NCCFD and is located at 11833 Tammy Way in Grass Valley. The NCCFD is responsible for any fire-related emergencies within the Project area.

**Police Protection**

The Project area falls under the jurisdiction of the Nevada County Sheriff's Office, who is responsible for police protection and public safety in the vicinity of the Project area. The nearest location of law enforcement services provided by the Nevada County Sheriff's Office is located at 950 Maidu Avenue in Nevada City.

**Schools**

There are 12 school districts within Nevada County: Chicago Park School District, Clear Creek School District, Grass Valley School District, Nevada City School District, Pleasant Ridge Unified School District, Pleasant Valley School District, Ready Springs Unified School District, Tahoe-Truckee Unified School District, Twin Ridges School District, Union Hill School District, Nevada Joint Union High School District, and Sierra College Extension. The Project area is located in the Pleasant Ridge School District and District 5 of the Nevada Joint Union High School District. The nearest schools are Cottage Hill Elementary, Magnolia Intermediate School, and Bear River High School, each approximately 3 miles from the Project area.



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**Parks**

The Bear River Recreation and Park District located in southwestern Nevada County serves as the nearest designated recreation area to the Project site. However, the Project area is not located within this district nor are there any parks located adjacent to the Project area.

**3.14.2 Regulatory Setting**

**Nevada County General Plan**

The Project is located in Nevada and partially in Placer County and would therefore be governed by both Counties' General Plans. The Nevada County General Plan (1995, 2008) includes the following specific objectives and policies that are applicable to the proposed Project as it relates to Public Services. The Safety Element of the Nevada County General Plan addresses a wide range of issues related to human health and safety, including emergency preparedness. The Public Facilities and Services Element addresses the changing public facility and service needs of Nevada County and provides guidance for their logical and timely extension to keep pace with County growth. These elements contain the following pertinent policies:

**Objective 3.1:** Public Facilities and services shall be directed as follows: a higher level to *Community Regions* and a lower level to *Rural Regions*.

**Objective 3.2:** Ensure that the capacity, availability, financing, and capability of public services and facilities are sufficient to meet levels of service requirements for development.

**Objective 3.4:** Develop and operate public facilities in an environmentally sound way.

**Objective SF-10.6.1:** Maintain appropriate levels of safety and protection services and facilities on land and water for both *Community* and *Rural Regions*.

**Goal FP-10.7:** Enhance fire safety and improve fire protection effectiveness through infrastructure and service improvements.

(Chapter 3 Public Facilities and Services (1995) and Chapter 10 Safety (2008), Volume 1, Nevada County General Plan)

**Placer County General Plan**

**Goal 4.A:** To ensure the timely development of public facilities and the maintenance of specified service levels for these facilities.

**Policies**

**Policy 4.A.1.** Where new development requires the construction of new public facilities, the new development shall fund its fair share of the construction. The County shall require dedication of land within newly developing areas for public facilities, where necessary.

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**Policy 4.A.2.** The County shall ensure through the development review process that adequate public facilities and services are available to serve new development. The County shall not approve new development where existing facilities are inadequate unless the following conditions are met:

- a. The applicant can demonstrate that all necessary public facilities will be installed or adequately financed (through fees or other means); and
- b. The facilities improvements are consistent with applicable facility plans approved by the County or with agency plans where the County is a participant.

**Policy 4.A.4.** The County shall require proposed new development in identified underground conversion districts and along scenic corridors to underground utility lines on and adjacent to the site of proposed development or, when this is infeasible, to contribute funding for future undergrounding.

**3.14.3 Impact Analysis**

The potential impacts to public services are qualified in Table 3-14 and discussed below.

Table 3-14

**CEQA Checklist for Assessing Project-Specific Potential Impacts to Public Services**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
<b>XIV. PUBLIC SERVICES -- Would the Project:</b>				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

**Finding: Less than significant impact**

The Project is designed to upgrade the existing Combie Phase I Canal to eliminate potential dangerous failure risks at times when operation is too high. The current failure risks have serious potential negative consequences for the safety of District operations staff, the reliability of treated water for the Lake of the Pines and North Auburn communities, the reliability of raw water supply for agricultural in the southwestern portion of the District, and the Bear River ecology and water quality. These upgrades address capacity and service issues caused by current and planned future flows in the District's service area, and are designed to improve the safety and efficiency of canal's ability to deliver water. Project activities will have less than significant impacts on fire protection, police protection, schools, or parks in proximately to the Project areas.

During the planned pipeline replacement to the Combie Phase I Canal, the canal will not be taken out of service, except for short durations as needed and will continue to supply water to various outlets. However, due to limited flow in the temporary bypass pipe (maximum of 50 cfs), construction will be performed during non-irrigation season (October thru April). The Project will be implemented over several construction seasons to avoid interrupting the water supply. Any decrease in flow will not result in any public loss for an extended period of time. The potential decrease in public water supply is found to be a less than significant impact.

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3.15 RECREATION

3.15.1 Impact Analysis

Impacts to recreation are qualified in Table 3-15 and discussed below.

Table 3-15  
CEQA Checklist for Assessing Project-Specific Potential Impacts to Recreation

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
<b>XV. RECREATION --</b>				
a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

**Finding: No impact**

The Project sites are not located on or near parks or recreation facilities. The Project involves the installation of dual pipelines within the existing Combie North Phase 1 Project area. The Project will neither increase the use of existing recreational facilities, nor will it require the construction of recreational facilities. Therefore, no impacts would occur.

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

**Finding: No impact**

The Project does not involve recreational facilities or require the construction or expansion of recreational facilities. Therefore, no adverse physical effect on the environment would occur involving parks or recreational facilities. No impacts would occur.

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**3.16 TRANSPORTATION AND TRAFFIC**

**3.16.1 Environmental Setting**

The Project is located in southern Nevada and Placer County, CA, and is located between Highway 20, 49 and Interstate 80. Highways in western Nevada County include Highway 20, 49 and 174. According to the Nevada County General Plan, the street system is composed of a combination of roadways, including:

- Interstate Highways and Freeways – Limited access highways carrying regional and interstate traffic;
- Principal Arterials – Roadways carrying some regional traffic and connecting the major population centers within the County;
- Minor arterials – Roadways providing primary access from freeways and principal arterials to major origins and destinations;
- Collectors (Major and Minor) – Streets connecting arterials to local roads;
- Locals – Streets providing primary access to individual properties

The main roads on which Project construction equipment and truck trips would occur are State Route 49 near Lake of the Pines, Combie Road, and Table Meadow Road. According to the County General Plan, State Route 49 is considered a “principal arterial” road, Combie Road is considered a “minor arterial” road, and Table Meadow Road near the Project site is typical of rural paved roads, and is considered a “local” road. Traffic on Table Meadow Road is generally characterized as “very light.”

Access to this Project site is challenging and work space will be limited. Access to the Project site and staging areas will include the use of Combie Road (county road) via Table Meadow Road (private paved road). Puma Trail Road will be used for the west end of the Project and the road is a single lane dirt road for a distance of approximately 0.4 miles currently used by the District for access. Access at the east end of the Project can be accessed from Ramada Way and Table Meadow Road (private paved roads), a distance of approximately 0.8 mile. Where the paved county road ends, an existing gravel road currently used by the District for access will be improved with the addition of an aggregate base. After the pipeline installation, the backfilled trench and finished surface would act as a permanent access road. Construction activities would normally occur on weekdays, excluding holidays, between 7:00 a.m. and 7:00 p.m.

**3.16.2 Impact Analysis**

Potential impacts to transportation and traffic are qualified in Table 3-16 and discussed below.



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Table 3-16  
**Potential Impacts to Transportation and Traffic**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
<b>XVI. TRANSPORTATION / TRAFFIC - Would the Project:</b>				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

**Finding: Less than significant with mitigation incorporated**

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Construction of the proposed Project would result in a temporary increase in truck trips on the local streets in order to deliver materials and machinery to the site. There will also be a limited number of vehicle trips from the work crew during the construction work hours (between 7:00 a.m. and 7:00 p.m.). The temporary increase in trips from Project-related vehicles and trucks is not expected to substantially affect load or capacity of the local road system. However, some of the area roads are dirt/graveled roads and may be damaged as a result of the passage of heavy trucks. Local roads are generally narrow, and access may be temporarily restricted during construction times as trucks are using the roads. Mitigation Measures TR-1, TR-2, and TR-3 will be implemented to reduce impacts to a less than significant level with mitigation.

**Mitigation Measure TR-1: Restore Road to Existing Condition**

Private or Public roads that are damaged by construction will be restored to pre-construction conditions where feasible by NID or its contractor. This may include repaving, regravelling or grading disturbed areas. The NID shall document road conditions pre-construction to provide a basis for restoration.

**Mitigation Measure TR-2: Prepare Plan for Traffic Control, Including Emergency Access.**

During construction, the NID or its contractor will prepare a plan to minimize interference with normal traffic flows. The plan may include, but is not limited to the following measures, which are similar to those required by a Nevada County Encroachment Permit:

- Protection of Traffic: Adequate provision will be made for the protection of the traveling public. Barricades will be fitted with lights at night. All traffic control, including devices and personnel requirements, will be as required by the current State of California Manual of Traffic Controls for Construction and Maintenance Work Zones.
- Minimum Interference with Traffic: All work will be planned and carried out so as to create the least possible inconvenience to the travelling public. Traffic will be permitted to pass at all times unless otherwise specified. One-way traffic may be maintained in the area of work only during daylight hours. Two-way traffic will be maintained at all times during hours of darkness and during daylight hours, where practical.
- Storage of Material: No material will be stored within 8 feet of the edge of the pavement or traveled way or with the shoulder lines where the shoulders are wider than 8 feet.
- Clean Up Right-of-Way: During construction, the paved roadway surfaces will be kept free of dirt or gravel as much as practical. Any potential hazard, such as mud or gravel will be removed immediately. Upon completion of the work, all materials will be removed and the right-of-way left in as presentable a condition as before the work started.

**Mitigation Measure TR-3: Notify Residents of Local Construction Schedule and Access Restrictions.**

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The NID or its contractor will notify local residents of the Project's construction schedule as feasible. This plan shall include a written notice via flyers or letters provided to affected neighbors; posting of notification of construction on NID's website; and notification to the respective fire district of the commencement of work.

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

**Finding: No impact**

Nevada County does not have a congestion management agency; therefore there will be no effect on a level-of-service standard for roadways in Nevada County. The temporary increase in Project traffic is not expected to substantially affect load or capacity of the local road system. Therefore, it is anticipated that there will be no impact.

- c) *Would the Project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?***

**Finding: No impact**

There are no commercial or private airports within close proximity to the Project site. The Auburn Municipal Airport is the closest public airport to located approximately 3.5 miles south of the Project site. The closest private airport is the Alta Sierra Airport located approximately 7 miles north of the Project site. Lastly, the closest military airport to the Project site is the Beale Air Force Base located over 18 miles from the Project site. The proposed Project is not located in the vicinity of any airports, and it would not change airport operations or traffic. Therefore, flight patterns in the Project vicinity would not be affected and therefore, no impacts would occur.

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

**Finding: Less than significant with mitigation incorporated**

The Project does not include any new design features on Project roadways, and therefore, would not result in any associated hazards. Project construction would require the transportation of heavy machinery and light trucks on the roads described above. The truck trips would be temporary and the frequency minimal and site specific. Mitigation Measures TR-2 and TR-3 described in section a will be implemented. Therefore, impacts are considered less than significant with mitigation incorporated.

- e) *Would the Project result in inadequate emergency access?***

**Finding: Less than significant with mitigation incorporated**

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Construction staging areas are expected to occur off of public roads, and will be contained on NID property to the extent possible. Activities at staging areas will be limited to the same working hours as the construction hours described previously. The Project is not expected to interfere with emergency access. Implementation of Mitigation Measure TR-2 will ensure adequate emergency access and interference with normal traffic flows to be minimal. Therefore, impact to emergency access is less than significant with mitigation incorporated.

**f) *Would the Project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?***

**Finding: No impact**

The Project would not involve a change in land use or affect transportation policies. It would not add residences or other land uses that would generate a need for alternative transportation. Therefore, no impacts would occur.

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### 3.17 UTILITIES AND SERVICE SYSTEMS

#### 3.17.1 Environmental Setting

The Nevada Irrigation District's Combie Phase I Canal sustains roughly fifty percent of its agricultural demand as well as municipal demand for the communities of Lake of the Pines and North Auburn. The canal is the primary conveyance mechanism for the District's water coming from Combie Reservoir. The proposed Project involves the installation of a 9,100 linear feet of dual pipes within the existing footprint of the Combie Phase I Canal and the addition of a 48-inch diameter parallel to the Bear River Siphon.

The canal was built in the early 1970's and is reaching the end of its useful life. Due to its location along steep slopes and the thin-wall construction, the canal has experienced conditions of stress and reduced effectiveness over the decades. The canal has failed three times. Upgrades to the canal are necessary for water supply reliability because failure risks associated with operation are too high. Current failure risks have serious potential negative repercussions for the safety of District operations staff, the reliability of treated water for the Lake of the Pines and North Auburn communities, the reliability of raw water supply for agricultural in the southwestern portion of the District, and the Bear River ecology and water quality.

The Bear River Siphon is necessary because 1) it is infeasible under current conditions and regulations to maintain the existing pipe crossing, and 2) a parallel pipe will facilitate maintenance by providing redundancy and reliability. The existing siphon was built in the early 1970's and has been and requires continued maintenance; however replacement is now necessary. The existing pipe is not rated to wind shear potential exerted on the pipe during maintenance activities unless substantial additional work to reinforce the facility prior to performing the maintenance.

#### 3.17.2 Regulatory Setting

##### Nevada County General Plan

The Project is located in Nevada County and would therefore be governed by the County's General Plan. The Safety Element of the Nevada County General Plan addresses a wide range of issues related to human health and safety, including emergency preparedness. The Public Facilities and Service Element addresses the changing Public Facility and Service needs of Nevada County and provides guidance for their logical and timely extension to keep pace with County growth. These elements contain the following pertinent policies from both elements:

**Objective 3.1:** Public Facilities and Services shall be directed as follows: a higher level to Community Regions and a lower level to Rural Regions.

**Objective 3.2:** Ensure that the capacity, availability, financing, and capability of public services and facilities are sufficient to meet levels of service requirements for development.



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**Objective 3.4:** Develop and operate public facilities in an environmentally sound way.

**Objective SF-10.6.1:** Maintain appropriate levels of safety and protection services and facilities on land and water for both Community and Rural Regions.

(Chapter 3 Public Facilities and Services (1995) and Chapter 10 Safety (2008), Volume 1, Nevada County General Plan)

**Placer County General Plan**

**Policy 1.K.5.** The County shall require that new roads, parking, and utilities be designed to minimize visual impacts. Unless limited by geological or engineering constraints, utilities should be installed underground and roadways and parking areas should be designed to fit the natural terrain.

**Policy 1.L.3.** The County shall protect and enhance scenic corridors through such means as design review, sign control, undergrounding utilities, scenic setbacks, density limitations, planned unit developments, grading and tree removal standards, open space easements, and land conservation contracts.

**Policy 8.F.2.** The County shall, within its authority, ensure that emergency dispatch centers, emergency operations centers, communications systems, vital utilities, and other essential public facilities necessary for the continuity of government be designed in a manner that will allow them to remain operational during and following an earthquake or other disaster.

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3.17.3 Impact Analysis

The potential impacts to utilities and service systems are qualified in Table 3-17 and discussed below.

Table 3-17

CEQA Checklist for Assessing Project-Specific Potential Impacts to Utilities and Public Services

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
<b>XVII. UTILITIES AND SERVICE SYSTEMS --</b>				
Would the Project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's Projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**a) *Would the Project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?***

**Finding: Less than significant**

The proposed Project involves upgrading the existing canal to ensure water supply reliability and prevent the risk of failure associated with operation. The Project entails the installation of 9,100 linear feet of dual pipes within the existing footprint of the Combie Phase I Canal and the addition of a 48-inch diameter parallel to the Bear River Siphon. The Project will not directly result in the increased generation of wastewater. Impacts are considered less than significant.

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

**Finding: Less than significant**

The Project is an upgrade of the existing canal and the addition of a 48-inch diameter parallel to the Bear River Siphon. Upgrades to the canal are necessary for water supply reliability because failure risks associated with operation are too high. Current failure risks have serious potential negative repercussions for the safety of District operations staff, the reliability of treated water for the Lake of the Pines and North Auburn communities, the reliability of raw water supply for agricultural in the southwestern portion of the District, and the Bear River ecology and water quality. The Bear River Siphon is necessary because 1) it is infeasible under current conditions and regulations to maintain the existing pipe crossing, and 2) a parallel pipe will facilitate maintenance by providing redundancy and reliability. Therefore, the Project would not require or result in the construction of new or expansion of existing water or wastewater treatment facilities. The Project incorporates measures into the Project design that will avoid significant environmental impacts, including appropriate mitigation measures where applicable. All environmental impacts associated with the Project will be avoided or mitigated to a less than significant level. Impacts are considered less than significant.

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

**Finding: Less than significant**

The Project involves the upgrade of the existing canal and will use Controlled Low Strength Material (CLSM) backfill as well as Controlled Density Fill (CDF) during construction. This will not significantly increase impervious areas or generate increased storm water flows, therefore will not require or result in the construction of storm water drainage facilities. Impacts to storm water facilities are considered less than significant impact.

- d) *Would the Project have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?***

**Finding: Less than significant**

The proposed Project involves the upgrade of the existing Combie Phase I Canal and the addition of a 48-inch diameter parallel to the Bear River Siphon. Construction of the proposed Project will utilize the existing canal as a pseudo-trench section and could be implemented without taking the canal out of service. The Project will have sufficient water supplies available to serve the Project from existing entitlements and resources. Impacts are considered less than significant.

- e) *Would the Project result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's Projected demand in addition to the provider's existing commitments?***

**Finding: Less than significant**

The Project involves the upgrade of the existing Combie Phase I Canal and increase flow of raw water conveyance from the current 200 cfs to 300 cfs to allow the District to meet the ultimate hydraulic needs of the system. The majority of the water is diverted into the Combie Phase II Canal and the Bear River Siphon for raw water in the southwestern portion of the District. Therefore, the increase of flow will have minimal effects on the capacity of the existing wastewater treatment facility. Impacts are considered less than significant.

- f) *Would the Project be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?***

**Finding: Less than significant**

Construction activities are not expected to generate substantial amounts of solid waste that will need to be disposed of at a landfill. Organic waste from tree trimming to upgrade existing access roads and to develop staging areas will be transferred to the appropriate solid waste handling facility as well as any graded and excavated dirt from the Combie Phase I pipeline upgrade.

In the event that surplus soil and demolition materials must be disposed of, solid waste materials from demolition will be transferred to the appropriate solid waste handling facility. The county has three main transfer stations that accept solid waste for a fee: McCourtney Road Transfer Station and Recycling Center, North San Juan Transfer Station, and Washington Transfer Station. The McCourtney Road Transfer Station and Recycling Center is the only location that will accept wood (clean)/yard waste.

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The Project will minimally and temporarily increase solid waste production over the current levels, and there are facilities available to accept solid waste materials generated by the construction of the Project. Impacts from solid waste generation will be less than significant.

**g) *Would the Project comply with federal, state, and local statutes and regulations related to solid waste?***

**Finding: Less than significant**

The California Integrated Waste Management Act requires every county to adopt an Integrated Waste Management Plan (IWMP) that describes county objectives, policies, and programs relative to waste disposal, management, source reduction, and recycling. Nevada County has implemented a Green Procurement and Sustainable Practices policy that is consistent with the CIWM Act. The removal of solid waste due to construction activities will comply with all federal, state, and local statutes and regulations. Impacts to solid waste statutes and regulations will be less than significant.



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3.18 MANDATORY FINDINGS OF SIGNIFICANCE

3.18.1 Impact Analysis

The mandatory findings of significance including potential impacts to sensitive resources, potential cumulative impacts, potential impacts to human beings, and potential global warming impacts are qualified in Table 3-18 and discussed below.

Table 3-18

CEQA Checklist for Assessing Project-Specific Mandatory Findings of Significance

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

**Biological and Cultural Impacts (a)**

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

As disclosed in Section 4, Biological Resources of this document, biological resources on the site that could be affected by the proposed Project include *Clarkia biloba*, aquatic reptiles and amphibians, nesting raptors and migratory birds. Recommended avoidance and minimization mitigation, such as pre-construction raptor nesting surveys, no disturbance buffers, alignment design to circumnavigate sensitive resources, and compensatory mitigation (when necessary) are included to ensure all potential impacts are mitigated to less than significant levels.

The Project will not cause a significant change to the quality of the environment at the Combie Canal or Bear River. The replacement of the canal will follow the existing alignment of the canal, therefore impacts are expected to be temporary in nature and the general quality will regenerate over time as it did when the original canal was installed. Similarly, the Bear River Siphon addition will be located next to the site of the existing siphon and any impacts to water quality in Bear River will be temporary and minimized by erosion control BMPs and the SWPPP.

The proposed Project will not substantially reduce fish habitat or wildlife species density. The Project phases will not substantially reduce fish habitat in the Bear River. In addition, the Project will not substantially reduce wildlife habitat or species. Sediment control measures will be taken to minimize impacts to the Bear River. The majority of this Project's proposed new infrastructure is located on graded habitat and areas that have been somewhat disturbed already.

The proposed Project will not cause a fish or wildlife species population to drop below self sustaining levels, or threaten to eliminate a rare or endangered plant or animal because the Project is not expected to significantly impact any locally, state, or federally rare and endangered species (See Table 3-1, 3-2, and Section 3). No state or federally listed rare or endangered plants were identified. Therefore, the Project will not cause a population to drop below self-sustaining levels.

As indicated in Section 5, Cultural Resources of this document, a full accounting of all potential cultural resources located within the APE was achieved through a records search, Native American consultation, and reconnaissance level field survey. The survey confirmed that the ground surface within the APE has been previously disturbed and developed. No potentially significant cultural resources were identified as a result of our efforts. Based on the negative results of the current investigation, as well as four previous studies within the APE, it is considered unlikely that there are intact cultural deposits within the APE. In summary, we are confident that our identification efforts have adequately explored the Project site and its potential for cultural resources. As such, a finding of No Historic Properties Affected is recommended. No further cultural resources study is warranted unless the design of the Project changes. There is the possibility, although very remote, that subsurface archaeological deposits may exist in the APE, as archaeological sites may be buried with no surface manifestation. If any cultural resources or human remains are encountered

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during construction, all construction activities will be halted and a professional archeologist shall be consulted. These mitigation measures will reduce the potential impacts to less than significant levels.

**Cumulative impacts (b)**

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

According to Nevada County (2011), there are no Projects planned within 3 miles of the Project site. The closest future Project is a 220 acre retirement community known as RinCon Del Rio that is approximately 3 miles west of Lake Combie Dam. The Combie Phase I replacement Project originates at the Combie Dam and moves 9,100 feet East along the meandering of the Bear River. The future RinCon Del Rio Project is not in close proximity to the Combie Phase I Canal Project. The canal is relatively isolated in a steep canyon and its mitigated potential impacts such as noise, dust, and tree removal, will be minimal and likely isolated to the canyon where the canal resides.

The proposed Combie Phase I Canal Replacement Project will not contribute to significant cumulative indirect growth impacts in the region. Presently, the canal is designed to convey a maximum flow of 200 cfs. The pipeline replacement would allow the District to meet the ultimate needs of the systems requiring delivery of up to 300 cfs to various points of discharge downstream. Currently, the gravity fed design only allows 180 cfs to flow through the system. The proposed replacement of the Combie Phase I Canal is to rectify current reliability and safety issues; however, it has been designed to accommodate future land use development and growth in accordance with the adopted general plans for the land use jurisdictions within its service area. The local jurisdictions regulate land use growth, and the location of development; land use decisions do not lie within the authority of NID. In this sense, the replacement of the Canal represents an accommodation to growth in compliance with Nevada and Placer County policies for provisions of superior levels of facilities and services prior to or concurrent with planned development. The local jurisdictions regulate land use planning through the adoption of general plans, zoning regulations, and pertinent amendments. It is possible that the local jurisdiction could rezone and amend their currently adopted general plan and thereby influence higher or lower levels of growth. NID could then implement expansion of a faster or slower basis to accommodate the actual levels of growth.

On this particular Project, increases in capacity cannot be implemented without the addition of a penstock connection to the southern outlet on the Combie dam and the pressurization of pipe. Therefore, although the Project is designed to accommodate future growth, it does not entail the two design aspects necessary to actually increase the capacity. If the added capacity is needed, such increases will be fully addressed in a future CEQA document.

The Project would not result in cumulative water quality impacts. The implementation of several erosion and sediment control measures outlined in the Environmental Commitments, Biological Resources and Water Quality Sections will minimize sediment impacts to Bear River. Therefore,

the Project should help by protecting the Canal from the current failure risks, which have potential negative repercussions for the Bear River ecology and water quality.

***Affects on Human Beings (c)***

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

As discussed in the various sections throughout this IS/MND, the proposed Project operation would not include uses, which would result in substantial adverse effects on human beings.

Potential impacts to human beings include increase in ambient noises during construction and increases in particulate matter (dust) in the air during construction. Both impacts are considered temporary and will be mitigated through incorporation of best management practices and mitigation measures. Specifically, to the extent feasible, construction activities will be limited to daylight or normal working hours to mitigate disturbance from temporary increases in noise during construction. An approved dust control plan with measures that include watering down the construction area and halting construction in high winds will be implemented to reduce temporary impacts to air quality. These BMPs and mitigation measures will ensure all potential adverse effects on human beings are reduced to less than significant levels. The monitoring, mitigation and reporting program shall be followed to ensure compliance with said measures. In addition, the Project is needed to reduce the hazard risk to NID employees that currently survey the canal monthly on foot (because vehicle traffic is too dangerous) for integrity issues. Therefore, the proposed Project would not have environmental effects with substantial adverse direct or indirect effects on human beings.

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Appendix A

**Placer County Air Pollution Control District  
(PCAPCD) Dust Requirements, Instructions, and  
Application**

# PLACER COUNTY AIR POLLUTION CONTROL DISTRICT DUST CONTROL PLAN INSTRUCTIONS AND APPLICATION

## Introduction

Placer County Air Pollution Control District (District) Rule 228, Fugitive Dust, addresses fugitive dust generated by construction and grading activities, and by other land use practices including recreational activities.

Fugitive dust is particulate matter discharged into the atmosphere due to a man-made activity or condition. Examples of dust sources that are subject to the rule are excavating and trenching, drilling, boring, earthmoving and grading operations, pavement or masonry cutting operations, brush clearing, travel on unpaved roads within construction sites, and wind-blown dust from uncovered graded areas and storage piles. Private recreational uses that could be affected include horse arenas and dirt motorcycle and ATV tracks.

Good practices to minimize dust generation are required to prevent dust plumes and dust from leaving the property and creating a public nuisance. The minimum dust control requirements of Rule 228 must be met regardless of whether a dust control plan is required.

When a Dust Control Plan (DCP) is required, the failure to submit a plan to the District or to obtain District approval of a plan, or to implement required dust control measures, is punishable by penalties of up to \$25,000 per violation, with each day during any portion of which a violation occurs being a separate offense, when a failure is due to negligence. Higher penalties apply for willful or intentional violations.

## Applicability

Unless exempted from Rule 228 applicability, summarized below, a Dust Control Plan is required for any construction project or construction-related activity where greater than one acre of the site's surface will be disturbed, and where this requirement has been established as a Condition of Approval of a discretionary permit or as a mitigation measure within an environmental document (such as an Environmental Impact Report for example).

The DCP must be submitted to the District for approval prior to the start of earth-disturbing activities. Note that the Dust Control Standards of Rule 228 apply to disturbed surface areas that are less than one acre, even when no Dust Control Plan is required.

## General Exemptions

Rule 228 exemptions include the following;

- Agricultural activities for commercial purposes,
- Operations conducted during an emergency or disaster, including by essential service utilities,
- Solid waste landfill operations,
- Operations within State or Federal lands,
- Active operations complying with California Forest Practice Rules,
- Contractors subsequent to the time the contract ends,
- Fire hazard abatement operations associated with county, state, or municipal entities or ordinances,
- Fire access roads,
- Unpaved roads unless associated with a development or construction activity,
- Mitigating actions that are in conflict with the Endangered Species Act,
- Emergency maintenance of flood control systems,
- Blasting operations permitted by California Division of Industrial Safety, and,
- Quarrying, surface mining, aggregate, and sand processing operations permitted by the District.



Exemptions may be contingent on specific factors, please consult RULE 228, Section 103. However, regardless of exemption status, when excessive dust results in a nuisance, the District may take enforcement action as necessary to halt actions related to nuisance emissions per Rule 205, Nuisance.

An Authority to Construct/Permit to Operate may also be required if any of the following equipment (including, but not limited to) will be used; engines/portable engines with greater than 50 horsepower, rock crushers, screens, trommels, concrete batch plants and any other equipment related to, or that may cause regulated air pollutants. If any such equipment will be used during the project, list the equipment in box 3.A., Project Information - Description of the Dust Control Plan Application form, and contact the District for a Permit Application at (530) 745-2330.

## **DUST CONTROL PLAN APPLICATION**

Complete and submit the following Dust Control Plan Application pages 1 through 5. This application, once completed, submitted to, and approved by the District, will stand as the applicant's Dust Control Plan. No fees will apply for properly completed applications.

Alternatively, an original Plan may be submitted in lieu of the attached application, but the applicant will be billed for additional review time at the General Time and Materials Rate found in the current **PLACER COUNTY AIR POLLUTION CONTROL DISTRICT FEE SCHEDULE, TABLE 601 – M.1.**



## DUST CONTROL PLAN APPLICATION PLACER COUNTY AIR POLLUTION CONTROL DISTRICT

<b>1. FOR DISTRICT USE ONLY</b>	
Fees Due:	Date Received by District
No Fees Apply for Complete Application	
<b>DISTRICT PLAN APPROVAL</b> Per information contained in the submitted Dust Control Plan documents and Application, the Plan is: <ul style="list-style-type: none"> <li><input type="checkbox"/> Approved</li> <li><input type="checkbox"/> Conditionally Approved</li> <li><input type="checkbox"/> Denied</li> </ul>	
Comments/Conditions <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <input type="checkbox"/> If this box is checked, comments are continued in block <b>4. Comments</b> on page 2.	
Signature _____ Date _____ <div style="text-align: center; margin-top: 10px;">Placer County Air Pollution Control Officer or Designee</div>	

<b>2. CONTRACTOR AND OWNER INFORMATION</b>			
<b>Contractor Information</b>		<b>Owner Information</b>	
Name		Name	
Address		Address	
City/State/Zip		City/State/Zip	
Contact		Contact	
Phone	Fax	Phone	Fax
E-mail Address		E-mail Address	

<b>3.A. PROJECT INFORMATION – DESCRIPTION</b>	Assessor's Parcel Number (APN)
Project Name	Project Number
Estimated Size of Project (total acres):	Disturbed Surface Area (acres):
Brief Description of Project Including List of Equipment to be used. (For example engines/portable engines rated greater than 50 horsepower, rock crushers, screens, trommels, concrete batch plants, etc.) If more space is needed, please continue in block <b>4. Comments</b> on page 2. <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/>	
Start Date	Estimated Completion Date



**DUST CONTROL PLAN APPLICATION  
PLACER COUNTY AIR POLLUTION CONTROL DISTRICT**

**5. PROJECT TYPE**

**Activity:** (At least one selection required.)

- |   |  |
|---|--|
| <input type="checkbox"/> Construction                 | <input type="checkbox"/> Commercial Property Development |
| <input type="checkbox"/> Grading                      | <input type="checkbox"/> Quarrying                       |
| <input type="checkbox"/> Road or Railway Construction | <input type="checkbox"/> Surface Mining                  |
| <input type="checkbox"/> Road Maintenance             | <input type="checkbox"/> Trenching / Utilities Work      |
| <input type="checkbox"/> Housing Development          | <input type="checkbox"/> Other (please describe)         |
- 

**6. TRACK-OUT PREVENTION**

**The following control measure MUST be addressed:**

- ✓ Any visible track-out on a paved public road where vehicles enter and exit the work area must be removed at the end of the workday or at least one time per day. Removal shall be accomplished by using wet sweeping or a HEPA filter equipped vacuum device. (Rule 228 Sections 304.1 and 304.2)

**Other control measures:** (At least one selection required.):

- A gravel pad designed using good engineering practices to clean the tires of exiting vehicles
  - A tire shaker
  - A wheel wash system
  - Pavement extending for not less than fifty (50) consecutive feet from the intersection with the paved public road
  - Any other measure(s) as effective as the measures listed above (please describe)
- 
- 
- 

**7A. VISIBLE EMISSIONS**

**Visible Emissions not Allowed Beyond Boundary Line:**

- ✓ A person shall not cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area (including disturbance as a result of the raising and/or keeping of animals or by vehicle use), such that the presence of such dust remains visible in the atmosphere beyond the boundary line of the emissions source. (Rule 228 Sections 301 and 401.4)
- ✓ When wind speeds are high enough to result in dust emissions crossing the boundary line, despite the application of dust control measures, grading and earthmoving operations shall be suspended and inactive disturbed surface areas shall be stabilized. (Rule 228 Section 401.6 and 402)

**Visible Emissions from Active Operations:**

- ✓ A person shall not cause or allow fugitive dust generated by active operations, an open storage pile, or a disturbed surface area, such that the fugitive dust is of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke as dark or darker in shade as that designated as No. 2 on the Ringelmann Chart (or 40% opacity), as published by the United States Bureau of Mines. (District Rule 228 Sections 302 and 401.4)

**DUST CONTROL PLAN APPLICATION  
PLACER COUNTY AIR POLLUTION CONTROL DISTRICT**

**7B. VISIBLE EMISSIONS**

**Controls for Earthmoving Activities will include:** (At least one selection required.)

- ✓ Suspending grading operations when wind speeds are high enough to result in dust emissions crossing the property line, despite the application of dust mitigation measures (Rule 228 Section 401.6)
  - ✓ Application of water prior to any land clearing (Rule 228 Section 401.4)
  - Pre-wetting the ground to the depth of the anticipated cuts
  - Reduction in earthmoving equipment operational speed
  - Any other measure(s) as effective as the measures listed above (please describe)
- 

**Controls for Active Storage Piles will include:** (At least one selection required.)

- Keeping the surface adequately wetted
  - Covering with tarps
  - Treating with a chemical dust suppressant
  - Other (please describe)
- 

**8. TRAFFIC CONTROL FOR ON-SITE UNPAVED ROADS, PARKING LOTS AND STAGING AREAS**

**The following control measure shall be addressed:**

- ✓ A maximum speed limit of fifteen (15) miles per hour (mph) unless the road surface and surrounding area is sufficiently stabilized to prevent vehicles and equipment traveling more than 15 mph from emitting dust exceeding Ringelmann 2 or visible emissions from crossing the project boundary line. (Rule 228 Section 401.2)
- ✓ If a City Ordinance is more restrictive than the above control measure, then the City Ordinance must be adhered to. Contact the local jurisdiction so that the more restrictive control measure is met.

**Additional control measures:** (At least one selection required.)

- Water every two hours of active operation or sufficiently often to keep the area adequately wetted
  - Apply chemical dust suppressants consistent with manufacturer's directions
  - Apply covering (please describe)
  - Any other measure(s) as effective as the measures listed above (please describe)
- 

**9. OFF-SITE TRANSPORT**

**The owner/operator must ensure that no trucks are allowed to transport excavated material off-site unless** (Rule 228 Sections 401.5 and 401.7):

- ✓ Vehicles leaving the site are cleaned to prevent dust, silt, mud and dirt from being released or tracked off site
- ✓ Trucks are maintained such that no spillage can occur from holes or other openings in cargo compartments
- ✓ Loads are adequately wetted

**And either:** (At least one selection required.)

- Covered with tarps
- Wetted and loaded such that the material does not touch the front, back or sides of the cargo compartment at any point less than six inches from the top and that no point of the load extends above the top of the cargo compartment

**DUST CONTROL PLAN APPLICATION  
PLACER COUNTY AIR POLLUTION CONTROL DISTRICT**

**10. MONITORING**

**Sampling** (Rule 228 Sections 303 and 501):

- Sampling to determine compliance with the particulate concentration limit of Section 303 is required only when deemed necessary by the Air Pollution Control Officer and requested, with reasonable notice, of the person discharging emissions, or sampling may be conducted by the District with the costs of sampling borne by the person discharging emissions. Sampling must be carried out according to Section 501.

**11. RECORDKEEPING**

**The owner/operator must ensure that the following District Rule 228 measures are observed:**

- ✓ Any contractor engaged in any active operation subject to this rule shall maintain records of actions to stabilize surface areas sufficient to establish location, type, and date of treatment. Records shall be maintained and be readily accessible for two (2) years after the date of each entry and shall be provided to the District upon request and shall be open for inspection during unscheduled audits during normal business hours. (Rule 228 Section 503.1)
- ✓ Results of any air sampling or air monitoring conducted at the request of the Air Pollution Control Officer shall be maintained for at least two (2) years. (Rule 228 Section 503.2)

**12. CONSTRUCTION EMISSIONS**

**The owner/operator must comply with the following if required as a Condition of Approval:**

- ✓ A comprehensive equipment inventory list compliant with the pertinent Condition of Approval shall be submitted thirty days prior to ground-breaking, and
- ✓ The inventory list must be updated beginning thirty days after any initial work has begun, and must be in accordance with the applicable Conditions of Approval.

**13. COMMENTS**

**Additional Comments**

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**14. RESPONSIBLE PERSON**

**By signing this form and under penalty of perjury, I certify that based on information and belief formed after reasonable inquiry, that the information provided is true and accurate, and that all Dust Control Plan requirements outlined in this document and Rule 228, Fugitive Dust, will be met.**

Signature of Company's  
Responsible Person

Date

Name and Title (Printed)

Phone Number



## **FUGITIVE DUST CONTROL REQUIREMENTS FACT SHEET**

### **Construction and Grading Dust Control Requirements**

Rule 228, Fugitive Dust, is applicable to the entire County of Placer and addresses fugitive dust generated by construction and grading activities, and by other land use practices including recreational activities.

Fugitive dust is particulate matter discharged into the atmosphere due to a man-made activity or condition. Examples of dust sources that are subject to the rule are excavating and trenching, drilling, boring, earthmoving and grading operations, pavement or masonry cutting operations, brush clearing, travel on unpaved roads within construction sites, and wind-blown dust from uncovered graded areas and storage piles. Private recreational uses that could be considered dust sources include horse arenas and dirt motorcycle and ATV tracks. Commercial agricultural operations are exempted from this rule. Any dust problems created by commercial agricultural operations, as defined by Placer County ordinances, will be addressed in cooperation with the Placer County Agricultural Commissioner, and when necessary under State and District nuisance regulations.

For areas to be disturbed of any size, Rule 228, Fugitive Dust, Section 400 establishes standards to be met by activities generating fugitive dust. Minimum dust control requirements, summarized below, are to be initiated at the start and maintained throughout the duration of construction:

- 401.1 – Unpaved areas subject to vehicle traffic must be stabilized by being kept wet, treated with chemical dust suppressants or covered. Cover materials must contain less than 0.25 percent naturally-occurring asbestos.
- 401.2 – The speed limit on unpaved areas must be 15 mph or less unless the road surface and surrounding area is sufficiently stabilized to prevent vehicles and equipment traveling more than 15 mph from emitting dust exceeding Ringelmann 2 (dust sufficient to obscure vision by 40%), or visible emissions from crossing the project boundary line.
- 401.3 – Storage piles and disturbed areas not subject to traffic must be stabilized by being kept wet, treated with a chemical dust suppressant, or covered when material is not being added to or removed from the pile.
- 401.4 – Prior to any ground disturbance, including grading, excavating, and land clearing, sufficient water must be applied to the area to be disturbed to prevent emitting dust exceeding Ringelmann 2 and to minimize visible emissions crossing the boundary line.
- 401.5 – Construction vehicles leaving the site must be cleaned to prevent dust, silt, mud, and dirt from being released or tracked off site.
- 401.6 – When wind speeds are high enough to result in dust emissions crossing the boundary line, despite the application of dust mitigation measures, grading and earthmoving operations are suspended.
- 401.7 – No trucks are allowed to transport excavated material off site unless no spillage can occur from holes or openings, and loads are either covered with tarps, or wetted and loaded such that the material does not touch the front, back, or sides of the cargo compartment at any point less than six inches from the top and that no point of the load extends above the top of the cargo compartment.
- 402 – A person must take actions such as surface stabilization, establishment of a vegetative cover, or paving to minimize wind-driven dust from inactive disturbed surface areas.

In addition, Rule 228 requires that all projects must minimize and clean-up the track-out of dirt or mud onto public paved roadways. For one acre and less disturbed surface area in areas that are not "Most Likely" to contain naturally-occurring asbestos (NOA) according to the District's NOA Hazard maps, and where NOA has not been found, only these minimum dust measures must be met (i.e., no Dust Control Plan is required).

For projects where greater than one acre of the site's surface will be disturbed, a Dust Control Plan (DCP) must be submitted to the District for approval prior to the start of earth-disturbing activities if this requirement has been established as a Condition of Approval of a discretionary permit. Guidance for the DCP and application are available at the District's web page, or by contacting the District as indicated below.

Areas identified by the California Department of Conservation, California Geological Survey (CGS) as having the highest likelihood for the presence of NOA require additional dust control measures when the earth is disturbed. *California Code of Regulations, Title 17, Section 93105, Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations* (State Asbestos ATCM), and District Rule 228, Fugitive Dust, establish the minimum standards that must be met for dust control. To determine if earth-disturbing activities are to occur in an area identified by CGS as an area "Most Likely" to contain NOA, the District's NOA Hazard maps should be consulted. When an area to be disturbed is greater than one acre and in a "Most Likely" to contain NOA area, an Asbestos Dust Control Mitigation Plan (ADMP) must be prepared, submitted to and approved by the District prior to the start of earth-disturbing activities. For more information regarding dust control requirements for projects occurring in an area "Most Likely" to contain NOA, please refer to the *Dust Control and Mitigation Requirements for Projects in Areas "Most Likely" to Contain Naturally-Occurring Asbestos (NOA) Fact Sheet*.

Copies of the Final Regulation Order, *Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations*, are available from the District, (530) 745-2330, or they may be downloaded by accessing the California Air Resources Board's Internet web page referenced below.

#### Additional Information Resources:

- Placer County Air Pollution Control District – [www.placer.ca.gov/apcd](http://www.placer.ca.gov/apcd)
- Dust Control Plan Information - [Dust Control Plan Instructions and Application](#)
- [Dust Control and Mitigation Requirements for Projects in Areas "Most Likely" to Contain Naturally-Occurring Asbestos \(NOA\) Fact Sheet \(6/10\)](#)
- *Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations* - [www.arb.ca.gov/toxics/atcm/asb2atcm.htm](http://www.arb.ca.gov/toxics/atcm/asb2atcm.htm)
- Placer County Air Pollution Control District (District) Rule 228, Fugitive Dust – [www.placer.ca.gov/Departments/Air/Rules.aspx](http://www.placer.ca.gov/Departments/Air/Rules.aspx)
- District NOA Hazard Maps – [www.placer.ca.gov/Departments/Air/NOA/NOAMapsAnd%20Resources.aspx](http://www.placer.ca.gov/Departments/Air/NOA/NOAMapsAnd%20Resources.aspx)
- Asbestos Dust Mitigation Plan Guidance and Related Forms – [www.placer.ca.gov/Departments/Air/NOA/NOAConstructionAndGrading.aspx](http://www.placer.ca.gov/Departments/Air/NOA/NOAConstructionAndGrading.aspx)

Appendix B

# **Cultural Resource Correspondence**

# NORTH CENTRAL INFORMATION CENTER

916-278-6217

ncic@csus.edu

FAX 916-278-5162

CSU-SACRAMENTO - 6000 J STREET, ADAMS BLDG. SUITE #208 - SACRAMENTO, CA 95819-6100

*Amador, El Dorado, Nevada, Placer, Sacramento, and Yuba Counties*

## Records Search Results Summary

February 18, 2011

NCIC File No.: NEV-11-08

Robert Larkin  
Stantec Consulting Services, Inc  
101 Providence Mine Road  
Suite 202  
Nevada City, CA 95959

Researcher: Ellen Bowden

### **Re: NID-Combie Phase 1 Canal Replacement Project**

T 13N/R 8E, Sections 2 3 4

USGS 7.5' Lake Combie Quad, Nevada County

- **NCIC Resources Within Search Area:** None
  
- **NCIC Reports Within Search Area:**  
5663  
10079
  
- **OHP Historic Property Data File (2010):** Nothing listed
- **Determination of Eligibility (2010):** Nothing listed
- **NRHP/CRHR listings (2008 & updates):** Nothing listed
- **California Inventory of Historic Resources (1976):** Nothing listed
- **California State Historical Landmarks (1996):** Nothing listed
- **Points of Historic Interest (1992):** Nothing listed
- **Caltrans Bridge Inventory:** Nothing listed
- **Historic Maps:**  
1865 GLO PLAT  
1887 USGS Smartsville Sheet  
1950 USGS Lake Combie quadrangle

Thank you for using our services. An invoice confidentiality agreement is enclosed; please sign and return a copy for our files.

STATE OF CALIFORNIAEdmund G. Brown Jr., Governor**NATIVE AMERICAN HERITAGE COMMISSION**

815 CAPITOL MALL, ROOM 364  
SACRAMENTO, CA 95814  
(916) 653-4082  
Fax (916) 657-5390  
Web Site [www.nahc.ca.gov](http://www.nahc.ca.gov)



March 2, 2011

Meagan O'Deegan  
Stantec Consulting  
101 Providence Mine Road, Suite 202  
Nevada City, CA 95959

Sent by Fax: 530-470-0518  
Number of Pages: 3

Re: Proposed Nevada Irrigation District, Combine Phase 1 Canal Replacement; Placer and Nevada Counties.

Dear Ms. O'Deegan:

A record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe or group. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 653-4040.

Sincerely,

A handwritten signature in black ink, appearing to read "Katy Sanchez".

Katy Sanchez  
Program Analyst

**Native American Contact List**  
Placer and Nevada Counties  
March 2, 2011

Shingle Springs Band of Miwok Indians  
John Tayaba, Vice Chairperson  
P.O. Box 1340  
Shingle Springs, CA 95682  
(530) 676-8010  
(530) 676-8033 Fax

Miwok  
Maidu

T'Si-akim Maidu  
Eileen Moon, Vice Chairperson  
760 So. Auburn St. Ste 2-C  
Grass Valley, CA 95945  
(530) 477-0711

(530) 274-7497

Jill Harvey  
11799 McCourtney Road  
Grass Valley, CA 95949  
(530) 273-1749

Maidu  
Miwok

Shingle Springs Band of Miwok Indians  
Nicholas Fonseca, Chairperson  
P.O. Box 1340  
Shingle Springs, CA 95682  
nfonseca@ssband.org  
(530) 676-8010  
(530) 676-8033 Fax

Miwok  
Maidu

Rose Enos  
15310 Bancroft Road  
Auburn, CA 95603  
(530) 878-2378

Maidu  
Washoe

T'Si-akim Maidu  
Grayson Coney, Cultural Director  
P.O. Box 1316  
Colfax, CA 95713  
akimmaidu@att.net  
(530) 383-7234

Maidu

United Auburn Indian Community of the Auburn Rancheria  
David Keyser, Chairperson  
10720 Indian Hill Road  
Auburn, CA 95603  
530-883-2390  
530-883-2380 - Fax

Maidu  
Miwok

United Auburn Indian Community of the Auburn Rancheria  
Marcos Guerrero, Tribal Preservation Committee  
10720 Indian Hill Road  
Auburn, CA 95603  
mguerrero@auburnrancheria.com  
530-883-2364  
530-883-2320 - Fax

Maidu  
Miwok

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Nevada Irrigation District, Combie Phase I Canal Replacement; Placer and Nevada Counties.



**Native American Contact List**  
Placer and Nevada Counties  
March 2, 2011

April Wallace Moore  
19630 Placer Hills Road  
Colfax, CA 95713  
530-637-4279

Nisenan - So Maidu  
Konkow  
Washoe

United Auburn Indian Community of the Auburn Rancheria  
Gregory S. Baker, Tribal Administrator  
10720 Indian Hill Road  
Auburn, CA 95603  
gbaker@auburnrancheria.  
530-883-2390  
530-883-2380 - Fax

Maidu  
Miwok

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Nevada Irrigation District, Combie Phase I Canal Replacement; Placer and Nevada Counties.



**SHINGLE SPRINGS RANCHERIA**  
P.O. BOX 1340; SHINGLE SPRINGS, CA 95682  
(530) 676-8010; FAX (530) 676-3582

March 8, 2011

Stantec  
3875 Atherton Road  
Rocklin, CA 95765

RE: Nevada Irrigation District, Combie Phase 1 Canal Replacement Project

Dear Meagan O'Deegan

Thank you for your letter dated March 4, 2011 seeking information regarding the proposed Nevada Irrigation District, Combi Phase 1 Canal Replacement Project that is located in Nevada and Placer County. Based on the information provided, the Shingle Springs Band of Miwok Indians is not aware of any known cultural resources on this site. However, SSR would like to have continued consultation through updates, as the project progresses this will foster a greater communication between the Tribe and your agency.

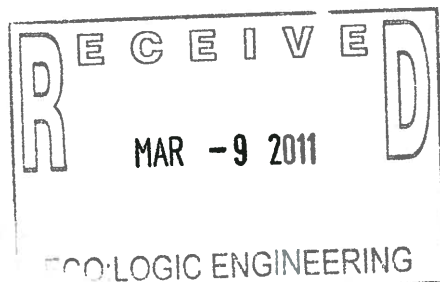
If during the progress of the project new information or human remains are found we would like to be able to go over our process with you that we currently have in place to protect such important and sacred artifacts (especially near rivers and streams).

Please contact the following individuals if such finds are made:

Mr. Daniel Fonseca, Director and Most Likely Descendant (MLD)  
Office: (530) 676-8010, [dfonseca@ssband.org](mailto:dfonseca@ssband.org)

And copy all communications to:  
Crystal Dilworth, Office Coordinator [cadilworth@ssband.org](mailto:cadilworth@ssband.org) Office (530) 698-1471

Thank you for providing us with this notice and opportunity to comment.



Sincerely,

Daniel Fonseca  
Assistant Director

**From:** [Marcos Guerrero](#)  
**To:** [O'Deegan, Meagan](#);  
**cc:** [Tribal Preservation](#); [Greg Baker](#);  
**Subject:** RE: Cultural Resources Information Request for 2 Nevada Irrigation District projects  
**Date:** Tuesday, March 01, 2011 9:54:30 AM

---

Hi Meagan,

Yes the UAIC is concerned about the Combie Phase I Project. We will send over a letter, but in the mean time can we schedule a field visit. Are there archaeological surveys being proposed, when will ground disturbance begin? Can you let me know the results of the records search?

There are concerns about exposed human remains along the Combie shoreline.

I will get back to you about Banner-Taylor Res.

Thank you for your time,

Marcos Guerrero, M.A., RPA  
Cultural Resources Specialist  
Tribal Historic Preservation Committee  
United Auburn Indian Community of the Auburn Rancheria  
10720 Indian Hill Road  
Auburn, CA 95603  
Office: (530) 883-2364  
Cell: (916) 420-0213  
Fax: (530) 885-5476

---

**From:** O'Deegan, Meagan [mailto:[Meagan.ODEegan@stantec.com](mailto:Meagan.ODEegan@stantec.com)]  
**Sent:** Tuesday, March 01, 2011 9:38 AM  
**To:** Marcos Guerrero  
**Subject:** Cultural Resources Information Request for 2 Nevada Irrigation District projects  
**Importance:** High

Dear Mr. Guerrero,

Please see the attached letters and maps regarding 2 Nevada Irrigation District Projects.

The Native American Heritage Commission included you as an individual/organization who may have knowledge of cultural resources in the 2 project areas.

If you have any information regarding Native American cultural resources within or adjacent to the project area or if you have any questions, please feel free to contact me directly via telephone (530) 470-0515 or e-mail at [meagan.odeegan@stantec.com](mailto:meagan.odeegan@stantec.com).

A hard copy of the letters and maps have also been mailed to you via U.S. Postal Service.

Thank you for your assistance in this matter.

Sincerely,  
Meagan O'Deegan

**Meagan O'Deegan**

Environmental Specialist

Stantec

101 Providence Mine Road Suite 202

Nevada City CA 95959

Ph: (530) 470-0515

Meagan.ODeegan@stantec.com

**stantec.com**

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**From:** [april moore](#)  
**To:** [O"Deegan, Meagan;](#)  
**Subject:** Combie Phase 1 Canal Project  
**Date:** Monday, March 14, 2011 10:14:25 PM

---

Good evening Meagan,

Thank you for allowing me to comment on this project, The Combie Phase 1 Canal Project. This project traverses along prehistoric trails which connected several Nisenan communities, this was also the avenue which the Nisenan used to travel into the Valley. The Brar River, also known as Kumin sew and Nem sew, has several sites along the river as well as a burial site. This project has potential for inadvertent discovery.

I'm requesting a Native American monitor present during all phases of ground disturbances.

Any questions call me and we can discuss any mitigation measures.

Thank You,

April Moore  
Maidu Family Story  
19630 Placer Hills Rd.  
Colfax, Calif. 95713  
[april@maidufamilystory.com](mailto:april@maidufamilystory.com)  
530-637-4279 home  
530-320-7141 cell

## O'Deegan, Meagan

---

**From:** Marcos Guerrero [mguerrero@auburnrancheria.com]  
**Sent:** Wednesday, April 13, 2011 10:04 AM  
**To:** O'Deegan, Meagan; april moore  
**Cc:** Tribal Preservation; Doug Roderick; Bezy, Bernadette  
**Subject:** RE: site visit - Combie Phase 1 Canal and Bear River Siphon Replacement Project & Banner Taylor Reservoirs Restoration Project

Great see you there,  
mg

---

**From:** O'Deegan, Meagan [mailto:Meagan.O'Deegan@stantec.com]  
**Sent:** Wednesday, April 13, 2011 9:59 AM  
**To:** Marcos Guerrero; april moore  
**Cc:** Tribal Preservation; Doug Roderick; Bezy, Bernadette  
**Subject:** site visit - Combie Phase 1 Canal and Bear River Siphon Replacement Project & Banner Taylor Reservoirs Restoration Project

Dear Mr. Guerrero and Ms. Moore,

This is just to confirm our scheduled site visit to the Combie Phase 1 Canal and Bear River Siphon Replacement Project Site and Banner-Taylor Reservoirs Restoration Project Site.

**When:** Tuesday, April 19, 2011

**Meeting Place:** Nevada Irrigation District  
1036 West Main Street  
Grass Valley, CA 95945

**Time:** 1:00pm

**Sites to Visit:** Combie Phase 1 Canal and Bear River Siphon Replacement Project Site  
Banner-Taylor Reservoirs Restoration Project Site

Please let me know if you have any questions or need any other information.

Thank you.

~Meagan

**Meagan O'Deegan**  
Cultural Resource Specialist  
Stantec  
101 Providence Mine Road Suite 202  
Nevada City CA 95959  
Ph: (530) 470-0515  
[Meagan.ODeegan@stantec.com](mailto:Meagan.ODeegan@stantec.com)  
**stantec.com**

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## O'Deegan, Meagan

---

**From:** april moore [april@maidufamilystory.com]  
**Sent:** Wednesday, April 13, 2011 10:54 AM  
**To:** O'Deegan, Meagan  
**Subject:** Re: site visit - Combie Phase 1 Canal and Bear River Siphon Replacement Project & Banner Taylor Reservoirs Restoration Project

Thank You Meagan, see you there  
April Moore

On Wed, Apr 13, 2011 at 9:59 AM, O'Deegan, Meagan <[Meagan.O'Deegan@stantec.com](mailto:Meagan.O'Deegan@stantec.com)> wrote:

Dear **Mr.** Guerrero and Ms. Moore,

This is just to confirm our scheduled site visit to the Combie Phase 1 Canal and Bear River Siphon Replacement Project Site and Banner-Taylor Reservoirs Restoration Project Site.

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Banner-Taylor Reservoirs Restoration Project Site

Please let me know if you have any questions or need any other information.

Thank you.

~Meagan