

# Sierra East Home Owner Association Water System Improvement Project

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## Initial Study and Negative Declaration

September 8, 2015



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## Negative Declaration

### Introduction

The Sierra East Homeowners Association (SEHOA) is a community in Antelope Valley about three miles south of the town of Coleville, California. The SEHOA owns and operates a small community water system (System Number 2600622) and is responsible for providing safe drinking water to its residents. The water system receives its source water from two groundwater wells and services approximately 29 single family residential connections. Historically, both source wells have tested positive for high arsenic levels. One of the source wells has, in addition to the high arsenic level, tested positive for bacteriological contamination on occasion. In February of 2012 the SEHOA received a compliance order (No. 02-03-12-622) from the Mono County Health Department Division of Environmental Health, which requires that the SEHOA cease and desist from continuing its use of the existing system's source water and provide the system with water of satisfactory quality per Section 116655 of the California Health and Safety Code.

Highly varied groundwater quality, resulting from a complex range of hydrogeological conditions in the Antelope Valley, presents the SEHOA with various groundwater quality challenges. One of the two source wells for the SEHOA has hot water (up to 145°F) while the other source well that is about 500 feet away has cold water. Both wells have arsenic concentrations several times the Federal Maximum Contaminant Level (MCL). After receiving a compliance order from the Mono County Department of Environmental Health, the SEHOA applied for and received grant funding to pursue available options for arsenic remediation. Based on existing peak water usage and peak water usage calculated for build out of the project site, the recommended treatment alternative is an adsorption system (Alternative 2A, as detailed in Appendix A of the Initial Study).

This Negative Declaration (NegDec) has been prepared pursuant to the California Environmental Quality Act (CEQA) based on the assessment presented in the Sierra East Homeowner Association Water System Improvements Project Initial Study that is attached. The Initial Study has been augmented to address Federal Cross-cutting requirements pertaining to the National Environmental Policy Act (NEPA) that are triggered by application for grant funding

through the Clean Water State Revolving Fund Program, a portion of which is federal monies provided by the United States Environmental Protection Agency (USEPA).

## **Project Name and Summary**

The purpose of the proposed Sierra East Homeowner Association Water System Improvement Project (Project) is to comply with the federal and state drinking water standard and begin removing naturally occurring arsenic from the potable water supply. As of January 23, 2006, water suppliers are held to a higher standard for arsenic, which was lowered from 50 ppb (parts per billion) to 10 ppb. While this is the federal maximum contaminant level, or MCL, the California Department of Health Services administers the regulatory process through county health departments. Arsenic concentrations have been tested in the SEHOA source water wells at concentrations of 29 µg/L up to 170 µg/L or approximately 3 to 17 times the primary MCL of 10 µg/L. The SEHOA operates under a domestic water supply permit issued by the Mono County Health Department Division of Environmental Health (Department). The proposed Project responds to the February 2012 order to comply with current arsenic MCL and the required monitoring and reporting.

Currently, residents of the SEHOA use point of use reverse osmosis water treatment, typically under the sink, to remove arsenic from water that is domestically consumed. In accordance with the California Health and Safety Code this is only a temporary measure until a permanent solution can be implemented that provides potable water to the entire distribution system. SEHOA received a planning grant, Agreement No. SRF13P120 and Project No. 2600622-001P, through the Drinking Water State Revolving Fund Program (DWSRF), to plan for correcting the deficiencies with the water system. As part of the planning process they contracted with R.O. Anderson Engineering to prepare the Preliminary Engineering Report, environmental documentation, and improvement plans necessary to bring the water system into compliance.

A number of water treatment systems alternatives were considered in the Preliminary Engineering Report, which was presented to the SEHOA, California Department of Health and California State Water Resources Control Board (State Water Board) on May 14, 2014. As a result of this review and the discussions that followed, a recommended Project was determined. The proposed Project will include the following components and actions:

- New Adsorption System for Removal of Arsenic;
- New Mechanical Building that will house the adsorption system and two 5000 gallon storage tanks;
- Abandon, Relocate and Redrill the existing Cold Well;
- Rehabilitate the existing Hot Well;
- New Hot Well Cooling Loop;
- New Water Meters;
- New Emergency Propane Generator; and
- Maintain the existing Mechanical Building/Community Spa for use as a Community Center and storage for the SEHOA.

## Environmental Determination

An Initial Study (attached) has been prepared to assess the potential effects of the proposed improvements on the human and physical environment of the SEHOA property and proposed project area. The analysis of potential environmental impacts from the proposed Project is based on data gathered for this Project and other related projects. Additional data was obtained from personal communications and from the sources listed in Chapter 4 of the attached Initial Study.

Based on the analysis presented in the Initial Study, the proposed Project and related actions would have less-than-significant or no impacts on the environment. No additional mitigation is required.

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

## Contact Person

\_\_\_\_\_

**Signature**

Louis Molina

**Printed Name**

\_\_\_\_\_

**Date**

REHS / Environmental Health Director

**Title**

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## Chapter 1: Introduction & Project Description

### 1.1 Introduction and Background

Establishing a new well with a potable water source was determined to be infeasible and therefore, an arsenic removal system has been designed. There are numerous commercially available arsenic removal systems that are effective. Since the Sierra East Homeowner Association (SEHOA) has a relatively small system with a design capacity of 27 gallons per minute (GPM) and a limited maintenance and operations budget, two types of arsenic removal systems were preliminarily planned and designed: adsorption and reverse osmosis. Other arsenic removal systems, such as coagulation and filtration, were considered but determined to be too expensive both in capital and operations and maintenance costs. The reverse osmosis alternative was considered and preliminary designs completed, but was not carried forward because this system produces a waste stream that has concentrations of arsenic and total dissolved solids that can be greater than groundwater concentrations. Additionally, reverse osmosis systems can be difficult to permit.

The SEHOA Water System Improvements Project (Project) will install an adsorption treatment system that addresses the SEHOA water quality concerns for arsenic at the point where source water enters the water supply distribution system and upstream of domestic connections. Additional project components include upgrades to and rehabilitation of the existing water supply system.

#### 1.1.A *Purpose and Need*

The SEHOA proposes to relocate and redrill the existing Cold Well, rehabilitate the existing Hot Well, install a hot well cooling loop, install water meters, install an emergency propane generator, and construct an arsenic removal system. The proposed adsorption system will be housed in a new 24 foot by 30 foot mechanical building. The purpose of the proposed Project is to comply with the federal and state drinking water standards and begin removing naturally-occurring arsenic from the potable water supply. As of January 23, 2006, water suppliers are held to a higher standard for arsenic, which was lowered from 50 ppb (parts per billion) to 10 ppb. The United States Environmental Protection Agency (USEPA) sets primary maximum concentration limits (MCLs), which are legally enforceable standards to protect the health of

drinking water consumers. Secondary MCLs are non-enforceable standards for contaminants that may either cause cosmetic effects (skin discoloration) or have aesthetic effects on the water such as taste and odor. States may choose to enforce Federal secondary MCLs at their discretion. While this is the federal maximum contaminant level, or MCL, the California Department of Health Services is administering the regulatory process with compliance typically monitored through county health departments. The SEHOA operates under a domestic water supply permit issued by the Mono County Health Department Division of Environmental Health (Department). The need for the Project is in response to the February 2012 order that was issued by the Department requiring the SEHOA to comply with current arsenic MCL and associated monitoring and reporting.

### **1.1.B *Project Funding***

The SEHOA received a planning grant, Agreement No. SRF13P120 and Project No. 2600622-001P, through the Safe Drinking Water State Revolving Fund (SDWSRF), to address the deficiencies of the water system. As part of the planning process, the SEHOA contracted with R.O. Anderson Engineering to prepare an Preliminary Engineering Report, the environmental documentation, and improvement plans necessary to bring the water system into compliance. The arsenic removal system will be funded by the SEHOA and any construction grant funding that the SEHOA may receive.

The State Water Resources Control Board's (State Water Board) Division of Financial Assistance recently streamlined access to the Drinking Water State Revolving Fund (DWSRF), making it easier for water systems to apply for project funds that will enhance and upgrade the drinking water supplies of millions of Californians.

Brought over with the transfer of the drinking water program on July 1, 2014, the DWSRF program offers below-market-rate loans to water providers to upgrade their drinking water systems to meet state and federal safe drinking water standards. As of January 1, 2015, the Division of Financial Assistance can accept DWSRF applications online year round, making it easier for water suppliers to begin developing critical public health upgrades to drinking water systems.

In addition, the State Water Board's DWSRF Policy Handbook makes more projects eligible for DWSRF funding. Newly expanded project types include: defective water meter replacement;

treatment to address secondary MCL exceedance; and water infrastructure replacement or update, including transmission or distribution lines, groundwater wells and other infrastructure. Water providers interested in DWSRF funds can now apply at any time as there is no pre-application or invitation process. The State Water Board funds DWSRF projects on a ready-to-proceed basis and will put projects that address critical public health issues in the highest priority, including imminent water supply outages and nitrate MCL violations. The SEHOA will pursue construction funding through this application process.

### 1.1.C *Project Location*

The SEHOA is located in northern Mono County on the east side of Highway 395 between the towns of Coleville and Walker, California, in the southern portion of Antelope Valley, as illustrated in Figure 1-A. The West Walker River flows north towards Topaz Lake and lies immediately adjacent to the eastern boundary of SEHOA. The Sierra Nevada foothills lie just to the west of the SEHOA, with the mountains themselves being just a few miles further west. The SEHOA property is comprised of 45 parcels, bearing Mono County Assessor Parcel Numbers 0247001 through 0247044 and 0247046. Figure 1-B illustrates the extent of the SEHOA property. The use and size of these 45 parcels depicted in Figure 1-B are presented in Table 1-A. With the exception of the relocated Cold Well, the proposed water system improvements will be located in an approximately 0.22 acre project area within the SEHOA property that is along the southern boundary, as depicted on Figure 1-B and detailed on Plan Sheet C01 of Appendix B, Improvement Plan Set.

Figure 1-A: Vicinity and Location Map

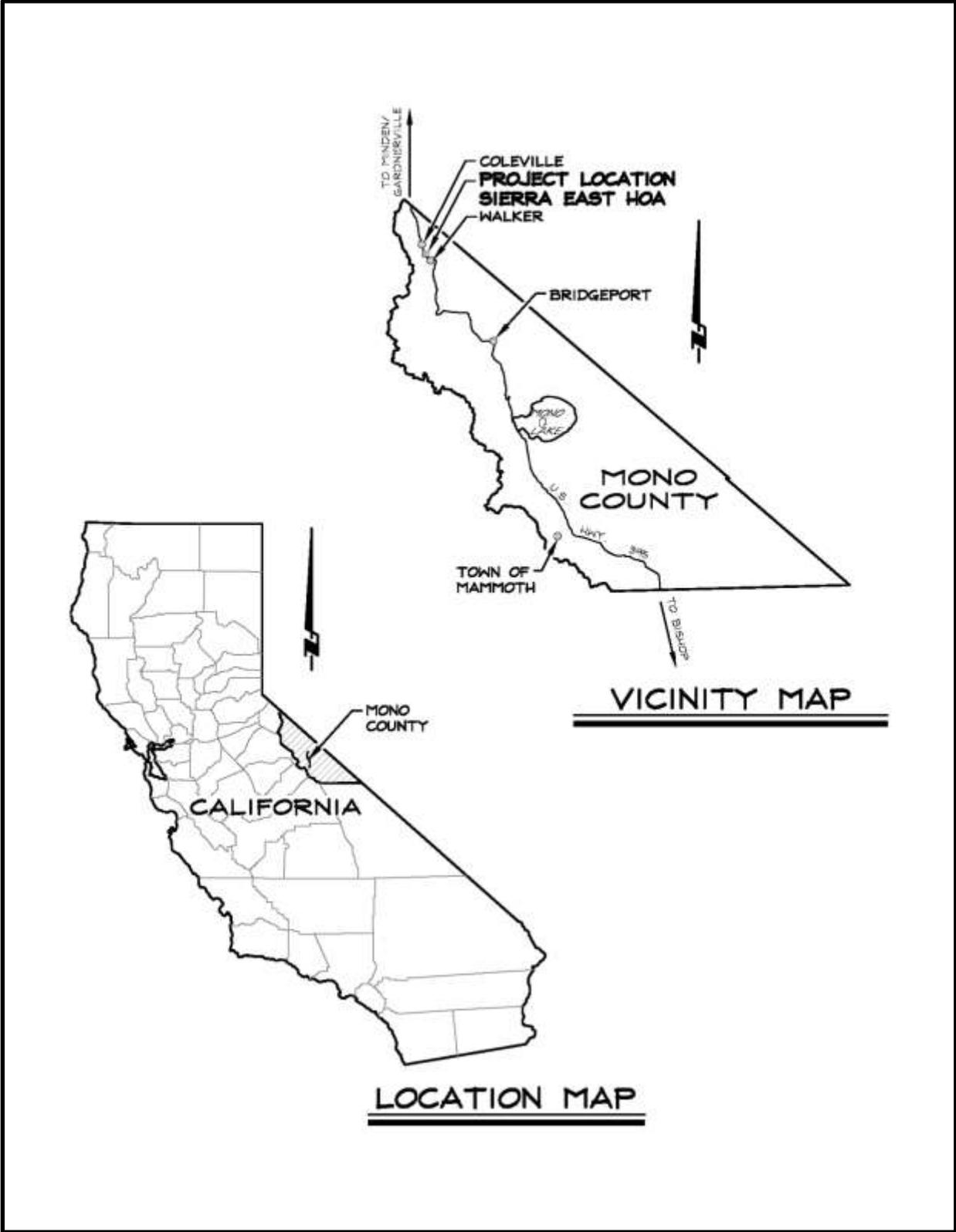


Figure 1-B: SEHOA Property and Project Site



<b>Table 1 –A: SEHOA Property Ownership</b>			
Number of Parcels	Use	Ownership	Approximate Area (acres)
1	Streets	SEHOA and/or Mono County	1.74
1	Vacant and Unbuildable	Mono County	0.09
10	Some improvements such as parking areas, propane tanks, septic systems and some landscaping but no residences	SEHOA	0.96
29	Single family homes	Private Ownership	3.47
2	Vacant but could be developed with a single family home	Private Ownership	0.21
2	Greenbelt with some improvements including wells, the combination pump house and community center and some landscaping	SEHOA	1.77
<b>45</b>	<b>TOTALS</b>		<b>8.24</b>

## 1.2 Project Description

Figure 1-C illustrates the overall site plan for the proposed Project. Figure 1-D depicts the treatment system proposed for arsenic removal from the existing SEHOA water supply is an adsorption system. The adsorption system will be installed at the point where source water enters the water supply distribution system upstream of domestic connections. The existing infrastructure for the SEHOA water supply and distribution system is approximately 32 years old and is arranged as a single path or tree system with 3-inch mains and ¾ inch service laterals for each domestic connection. The Project will upgrade and rehabilitate the existing supply wells, but improvements to the distribution system will not be addressed. The proposed Project will include the following components and actions:

- New Adsorption System for Removal of Arsenic;

- New Mechanical Building that will house the adsorption system and two 5000 gallon storage tanks;
- Abandon, Relocate and Redrill the existing Cold Well;
- Rehabilitate the existing Hot Well;
- New Hot Well Cooling Loop;
- New Water Meters;
- New Emergency Propane Generator; and
- Maintain the existing Mechanical Building/Community Spa for use as a Community Center and storage for the SEHOA.

### 1.2.A *Description of the Arsenic Removal Project*

The maximum production rate of the existing Cold Well is 50 GPM (California Department of Water Resources [CDWR] Well Log No. 162959) and the maximum production rate of the existing Hot Well is 75 GPM (CDWR Well Log No. 37969). The Project will avoid substantial impacts to groundwater supplies and recharge through installation and monitoring of new water meters and installation of two 5,000 gallon storage tanks. Ultimately, the Project limits maximum production from either well or both wells in parallel to 40 GPM or less as a function of the flow control valves in the arsenic removal system. That is, maximum production rates under this Project will be less than the historic maximum production rates.

Arsenic removal by adsorption is the process by which arsenic is physically and/or chemically removed from water and attached to a porous media. Adsorption is an effective treatment process for removing both arsenic and fluoride. Figure 1-D depicts the proposed adsorption system and illustrates the arsenic removal process. The adsorption system involves taking water pumped directly from the well and diverting it through a pre-filter to remove large particles, sediment, and debris. After passing through the pre-filter, the water enters the adsorptive media canisters where arsenic and other contaminants such as fluoride are removed. Prior to the adsorptive media, calcium chloride is injected to increase hardness and mitigate the presence of silica. Adsorption, as with nearly all arsenic removal processes, requires that the incoming arsenic be oxidized into arsenate. The SEHOA source water arsenic contaminant is mainly arsenate, but there is some unoxidized arsenic that requires oxidizing by chlorination prior to treatment. Oxidation will be accomplished through the metered addition of Hypochlorite (NaOCl) and Calcium Chloride (CaCl).

Once the water has passed through the adsorptive media, it is stored in tanks and subsequently delivered to a downstream point of use. Supplemental storage of the treated water is necessary for the water supply to meet peak day demand is 27 GPM, which exceeds the pump capacity. The total minimum recommended design storage, including regulating and emergency storage, is 8,900 gallons. This storage will be provided by two identical 5,000 gallon storage tanks operating in parallel so that one tank can be taken out of service for repairs and maintenance while maintaining water service through the system.

Adsorption is a passive process and in most cases does not require a substantial pressure differential in order to operate. Depending on the pressure drop across the arsenic removal system, as determined during final design, a booster pump may not be necessary upstream of the adsorption system. However, if the treated water is stored in gravity tanks, rather than a hydropneumatic tank, booster pumps would be required to deliver the stored water to the distribution system.

### **1.2.B *New Mechanical Building***

A new mechanical building will be constructed to house the proposed equipment and two 5,000 gallon water storage tanks. The new building, a 24 foot by 30 foot CMU concrete block building with 10 foot high walls, will be constructed in the immediate proximity of the existing mechanical building. The building foundation pad will be elevated to at least one foot (12 inches) above the base floodplain elevation of 5,264 feet above mean sea level. An HVAC system will be installed with the new building, consisting of propane fired heater, a smaller electric heater, exhaust fan, and louvers. The mechanical building will have lighting, electric service, control systems for alarm and climate control, and a metal roll up door to facilitate moving the storage tanks in and out. Figure 1-E illustrates the components of the proposed mechanical building. Lighting will be installed near the entrance door on the proposed building. The lighting is only necessary in case of an emergency after hours. Lighting will have timers to shut off after two hours from being activated as not to cause an undue nuisance. Furthermore, the lighting will use cut-off luminaries with light directed downward. The existing mechanical building, although too small to accommodate the new adsorption system, will continue to be utilized as a Community Center and potentially for storage needs of the SEHOA.

Figure 1-C: Proposed Site Plan

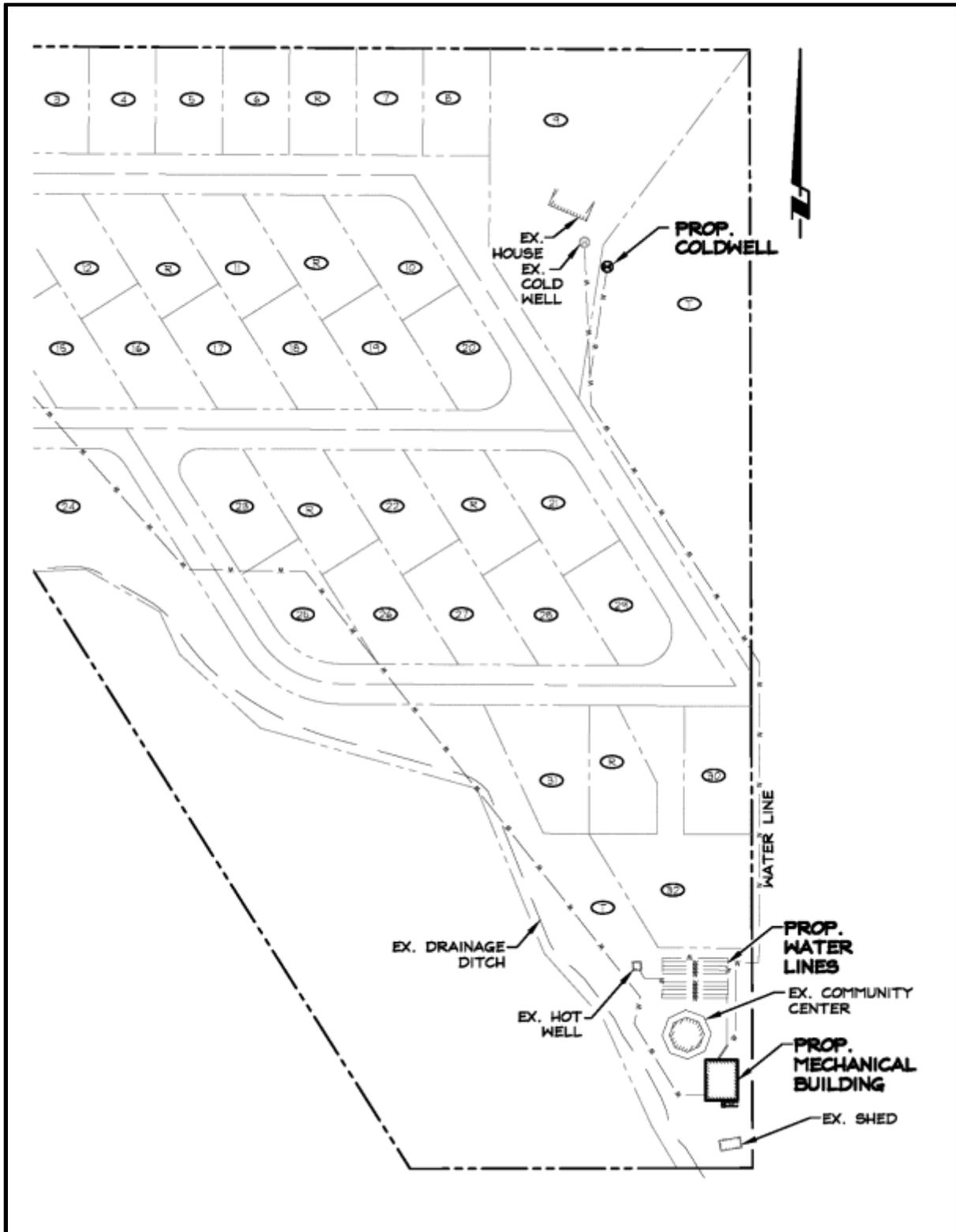


Figure 1-D: Proposed Arsenic Removal System (Adsorption)

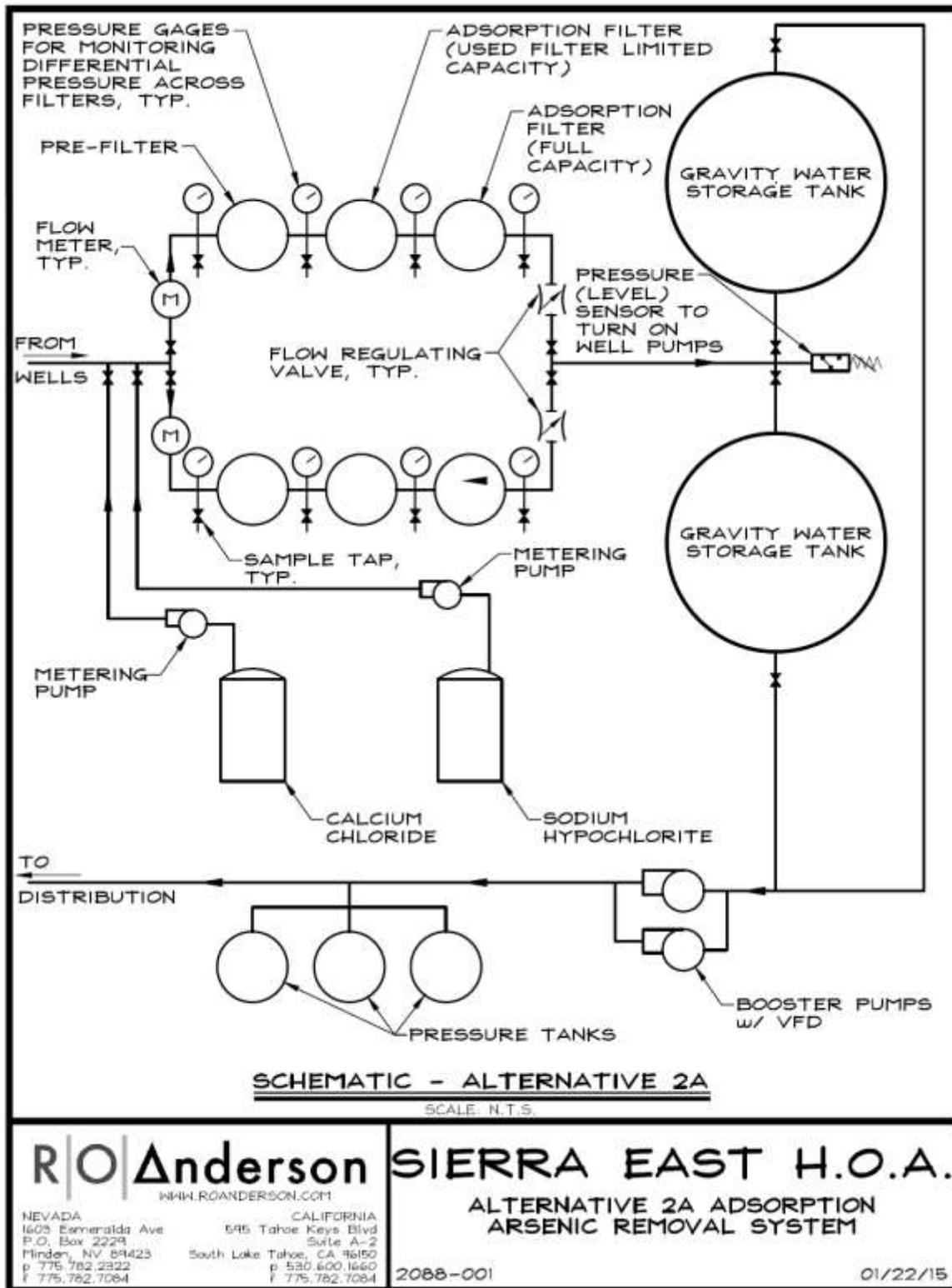
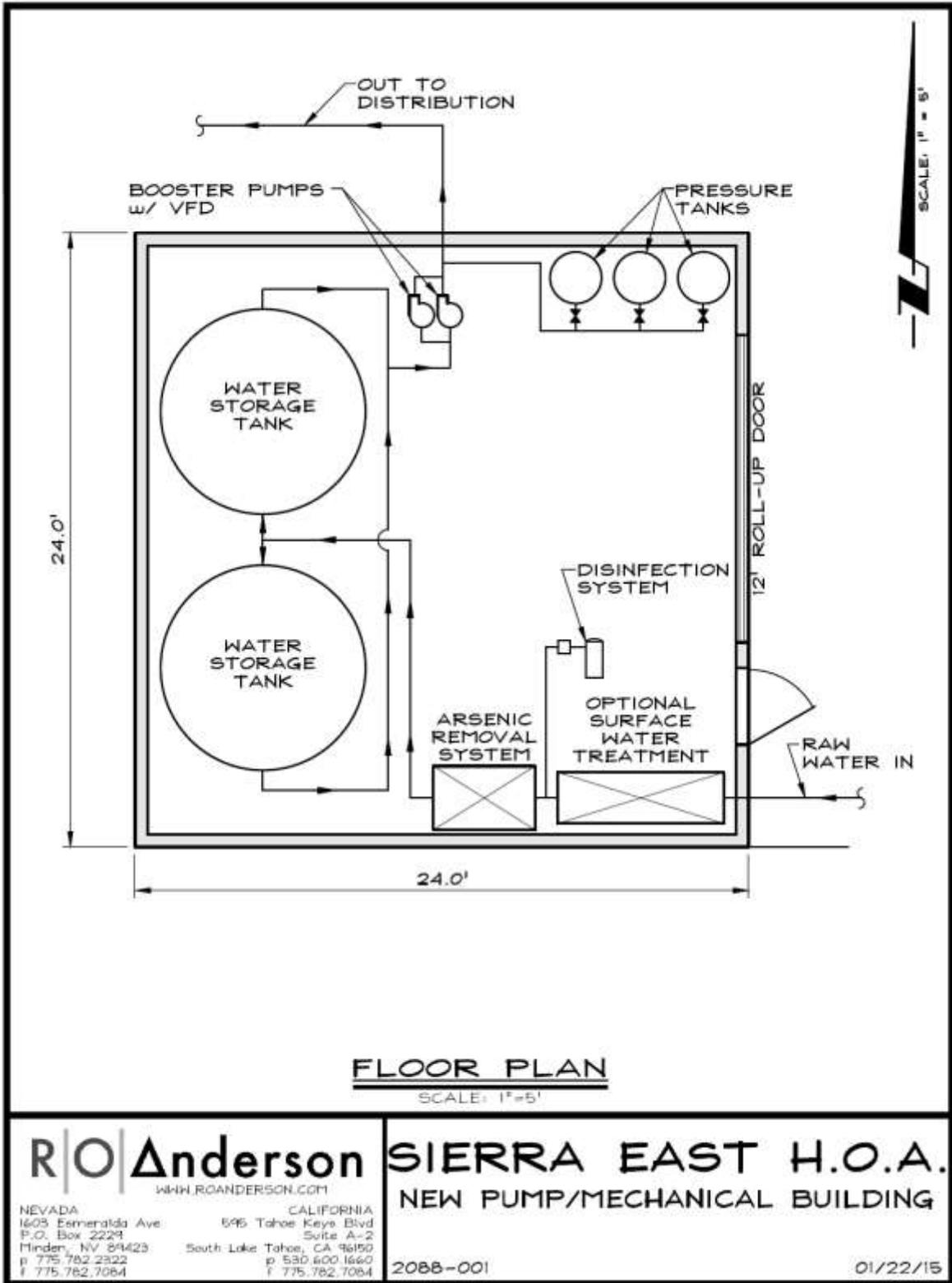


Figure 1-E. New Mechanical Building



### 1.2.C *Redrill the Cold Well*

The CDWR Well Log No. 162959 reports the maximum production rate of the Cold Well at 50 gallons per minute (GPM). However, the field estimated average production rate of this well is 9 GPM. The Cold Well can currently meet the minimum domestic demand; however, based on review of available data and historic water supply information, the maximum capacity of this well and its condition is uncertain. Because of the uncertainty that the Cold Well can meet the maximum daily demand of 27 GPM and because the well has had past occurrences of bacteriological contamination, the Cold Well will be abandoned at the existing location and redrilled approximately 25 feet to the southeast on property owned by the SEHOA, as depicted in Appendix A, Figure 2. The locations of existing and proposed Cold Well are also identified in Figure 1-C above. The relocated Cold Well will be designed to address corrosion, screen clogging and sanitary seal concerns and equipped with a pump sized for the maximum capacity up to 27 GPM. The relocated Cold Well will serve as the primary water supply and the final design will assure that the top of the well casing is sited above the base flood elevation of the West Walker River. The casing for existing Cold Well will be pulled, physical structures removed, and the hole will be filled and sealed with expanding grout per California Department of Water Resources specifications.

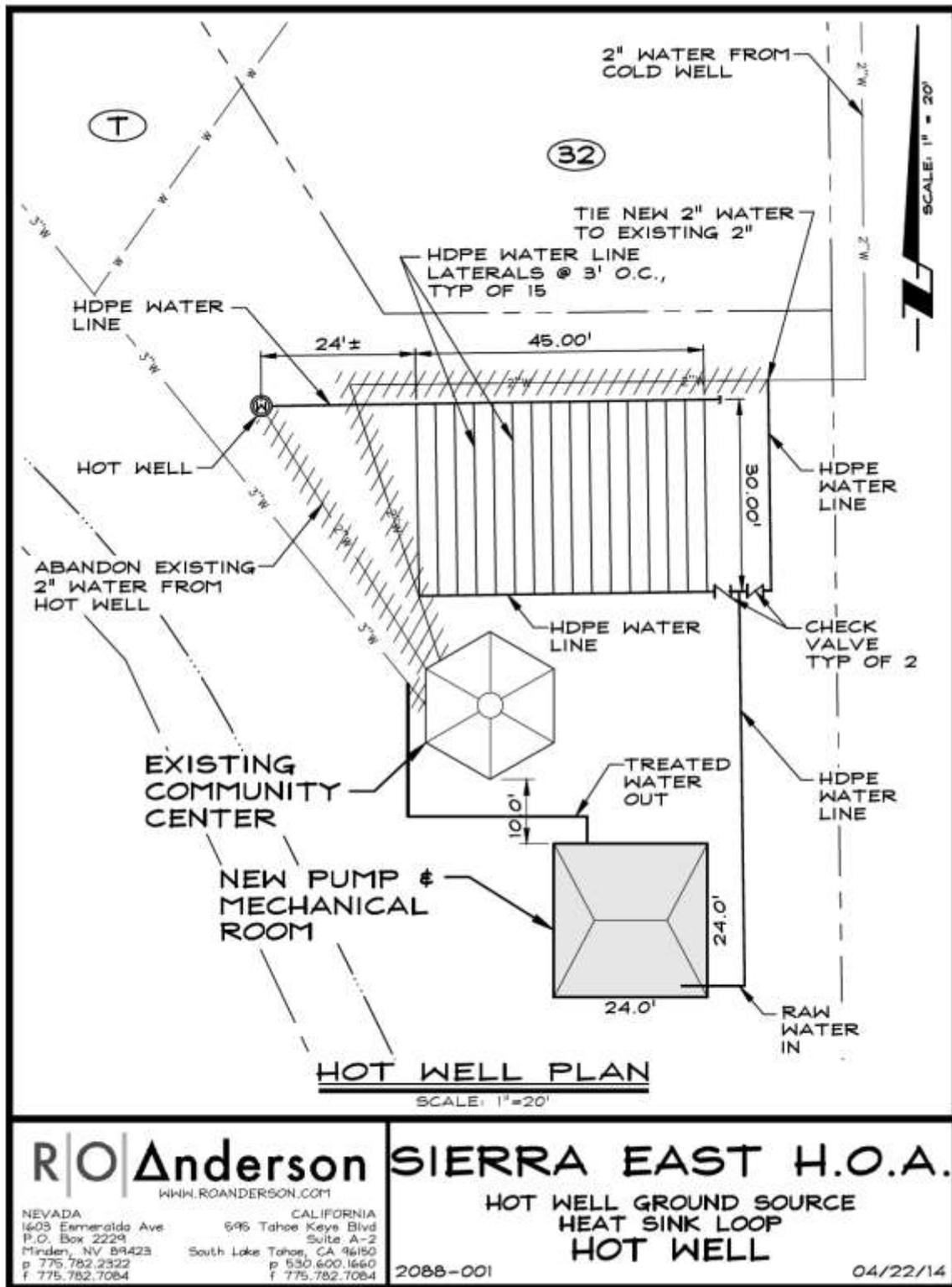
### 1.2.D *Rehabilitate the Hot Well*

The CDWR Well Log No. 37969 reports the maximum production rate of the Hot Well at 75 GPM. Although the actual production rate is currently unmetered, the Hot Well average production rate has been determined adequate to meet the maximum day demand of 27 GPM. The existing casing and screen will be cleaned and maintained to improve upon existing capacity. As detailed in Appendix A, the water temperature of the Hot Well is measured at 100 degrees Fahrenheit and greater, temperatures that may be detrimental to the piping materials in the water system. To reduce maximum water temperatures to temperatures that are appropriate for the arsenic removal system, a cooling loop is proposed as described in Subsection 1.2.E that follows. In order to provide for a redundant system, the Hot Well will be kept in use as an auxiliary water source and will serve as the backup water supply.

### 1.2.E *Hot Well Cooling Loop*

In order to provide for a redundant system, the Hot Well will be kept in use as an auxiliary water source and the proposed cooling loop will be used to reduce water temperatures before pumping through the arsenic removal and water distribution systems. Reducing water temperatures from the Hot Well reduces the cost of treatment equipment and materials and generally will provide for greater longevity of the water supply system. The Project will install a ground source heat sink (i.e., cooling) loop. Water from the Hot Well will be pumped through a buried manifold of small diameter pipes that are designed to maximize the convective surface area by which heat will dissipate into the adjacent ground material. The Cooling Loop will be installed at an approximate depth of 60 inches below ground surface, which is above the seasonal high groundwater level, as based on fault trenching performed to depths of seven feet and the absence of groundwater during these geotechnical explorations (Black Eagle Consulting 2015). The Hot Well Cooling Loop is illustrated in Figure 1-F.

Figure 1-F. Hot Well Cooling Loop



### 1.2.F *Water Meters*

The SEHOA system is presently un-metered. Water consumption has been estimated from measured amperage draw at the Cold Well electrical meter and from kilowatt/hour consumption on the monthly bills from Liberty Utilities for the Hot Well. Meters are an infrastructure upgrade that can be used to assess fees for the use of water and to promote water conservation. Water meters are also useful for identifying the presence and magnitude of system leakage. Meters are not considered to be an urgent need for the SEHOA; however, they will be a benefit and allow for water restrictions to be implemented if peak demand cannot be met.

Water meters will be placed on the ¾-inch service laterals to each residence and common area service with an isolation valve within the water meter vault. A touch read system is proposed, where the operator touches the lid of each meter vault with an instrument and the meter reading is transferred electronically to the instrument. The instrument is then connected to a computer and the readings are downloaded and stored electronically. The data can then be transferred to billing software that will generate monthly bills.

### 1.2.G *Emergency Generator*

Installation of a large generator will allow the water system to remain operational during power outages, preventing system pressure losses and gaps in service. The emergency generator will be fueled by propane and will ensure a continuous water supply during a power interruption. The proposed emergency generator will be in accordance with standards for water systems but will not meet the stricter National Fire Protection Association standards for fire protection systems.

1.2.H *Removal of Waste Generated by Treatment Process*

The adsorption process does not typically produce a waste stream. Preliminary calculations, based upon the expected amount of arsenic to be added to the cartridge in addition to the binding of the arsenic to the media along with the expected pH, indicate that spent cartridges will not be considered a hazardous waste according to California and federal guidelines and can be disposed of as a non-regulated waste (ordinary waste). However, to be in strict compliance with regulations the media will be tested following adsorption system start up to verify that cartridges are not considered hazardous. Spent cartridges can either be sent back to the manufacturer for disposal or transported to an approved disposal facility.

1.2.I *Construction and Maintenance*

Table 1-B outlines the construction timeline that is anticipated to occur over approximately four months and utilize a variety of equipment.

<b>Table 1 –B: Project Construction Schedule</b>			
<b>TASK</b>	<b>DAYS</b>	<b>TRIPS/DAY</b>	<b>TYPE</b>
Mobilization	3	3	1 Medium Truck and 1 Large Delivery Trucks
Redrill cold well	5	2	Well Truck (Large)
Rehab hot well	5	2	Well Truck (Large)
Excavation, fill and pad preparation	14	2	Light Trucks & Onsite Equipment – Back Hoe, Excavator, Rolling Vibratory Compactor
Building construction & floor drain connection to existing septic	21	2	Light Trucks & Onsite Backhoe
Mechanical and equipment installation, electrical	21	2	Light Trucks, Delivery Trucks (large)
Cold well connection	3	2	Light Trucks
Start up and testing – transition to cold well supply through new system for potable water	3	2	Light Trucks and Sedan
Cooling loop installation	5	2	Light Trucks and Back Hoe Onsite
Hot well connection	1	2	Light Trucks
Water meter installation	14	2	Light Trucks and Back Hoe onsite
<b>Totals</b>	<b>95</b>	<b>17</b>	

Long-term maintenance of the arsenic removal system and facilities will involve the following:

- 95% of maintenance will be performed onsite by residents and involve no additional trips.
- Water sampling by a certified operator will occur monthly (one trip/month) utilizing a light duty sedan.
- Well maintenance will occur annually, assume one trip/year by a heavy well truck.
- Filters will likely be replaced quarterly or less, depending on water quality sampling results.
- Mechanical and electrical repairs and maintenance will occur annually, assume one trip/year in a light truck.

#### 1.2.J *Best Management Practices Plan/Project Design Measures*

The following Best Management Practices (BMPs) and Design Features are included as part of the Project proposal.

**Particulate Matter Control/Dust Control Plan.** Great Basin Unified Air Pollution Control District (GBUAPCD) Rule 400 and 401 require that reasonable precautions be taken to prevent visible particulate matter from being airborne, under normal wind conditions, beyond the property from which the emissions originate. To ensure that emissions of particulate matter will be minimized, the following feasible PM10 control measures for construction activities will be implemented:

- Water active construction areas at least twice daily and more often during windy periods. Active areas adjacent to existing land uses will be kept damp, or will be treated with non-toxic stabilizers or dust palliatives.
- Apply water three times daily, or apply (non-toxic) soil stabilizers on unpaved access roads, parking areas and staging areas at construction sites.
- Sweep daily (preferably with water sweepers) paved access roads, parking areas and staging areas at construction sites.
- Hydro seed or apply non-toxic soil stabilizers to inactive construction areas.
- Enclose, cover, water twice daily, or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.).
- Limit traffic speeds on unpaved roads to 5 mph.

- Install fiber rolls, filtration fencing or other erosion control measures to prevent silt runoff to public roadways.
- Suspend excavation and grading activity whenever the wind is so high that it results in visible dust plumes despite control efforts.

**Construction Equipment Air Pollutant and Greenhouse Gas Emissions Control Plan.** To ensure that emissions from construction equipment exhaust will be reduced the following measures will be implemented:

- Use alternative fuel construction equipment to the fullest extent possible.
- Minimize idling time (e.g., 5 minute maximum).
- Maintain properly tuned equipment according to equipment manufacturer's guidelines.
- Limit the hours of operation of heavy equipment and/or the amount of equipment in use as specified for noise mitigation purposes.

**Pre-Construction Nest Surveys.** In compliance with the Migratory Bird Treaty Act (MBTA), if project construction occurs during the nesting season between the months of April and August, the SEHOA will protect existing active bird nests and/or nursery sites impacted by construction activities:

- The SEHOA will develop an Active Raptor and Migratory Bird Protection Program (Program) to meet the requirements of the MBTA. The Program will include surveys, consultation with California Department of Fish and Wildlife (CDFW) and the US Fish and Wildlife Service (USFWS) (if necessary), and protective actions.
- Pre-construction surveys, scheduled during the nesting/breeding season and immediately prior to initial Project construction (e.g., excavation, grading and vegetation removal), will be conducted to identify active raptor and migratory bird nest sites within the project area that may not have occurred previously or were not identified during prior biological surveys.
- During initial construction activities, a qualified biological monitor will be present to determine if raptors or migratory birds are occupying trees within the project area and immediate vicinity. The biological monitor will have the authority to stop construction near occupied trees or nursery sites if construction activities appear to be negatively impacting nursery sites, nesting raptors, migratory birds or their young.
- If construction must be stopped, the biological monitor will consult with CDFW and also USFWS (if applicable) staff within 24 hours to determine appropriate actions to restart construction while avoiding and reducing impacts to identified nursery sites, raptor nests and/or migratory bird nests.

**Groundwater Protection.** In order to prevent groundwater degradation, the following measures will be implemented:

- Store, maintain construction equipment (except fueling by truck) at designated staging areas;
- Maintain spill cleanup equipment with fuel trucks. Cleanup fuel spills immediately;
- Minimize the amount and duration of construction materials stored onsite. Store construction materials that could adversely affect groundwater quality (e.g. paint, solvents, and fuels) on containment pallets or similar facilities that would prevent discharges to the ground in the event of a spill or leak; and
- Maintain spill cleanup materials onsite. Respond to spills and leaks immediately to contain and remove the pollutants from the site.

**Prevent and Control Noxious Weeds.** In order to prevent the spread of noxious weeds, the following measures will be implemented:

- It is recommended that construction vehicles, including off-road vehicles, are cleaned when they come into the project site, especially when equipment arrives from a known weed infested area. Equipment will be considered clean when visual inspection does not reveal soil, seeds, plant material, or other such debris.
- Vehicles used for project are not permitted to pull off the road other than within the project site. Stage equipment in weed-free areas to prevent vehicles from introducing or spreading noxious weeds, especially cheatgrass.
- Earth-moving equipment, gravel, fill, or other materials are required to be weed-free. Use onsite sand, gravel, rock, or organic matter when possible. Otherwise, obtain weed-free materials from gravel pits and fill sources that have been surveyed and approved.
- Minimize the amount of ground and vegetation disturbance in the construction areas. When the construction part of the project is completed, vegetation will be re-established in the disturbance footprint in order to minimize weed establishment.
- Hand pull or flag and avoid weed infestations prior to project implementation.

**Construction Noise Reduction Techniques.** In order to reduce construction related noise, the following measures will be implemented:

- Equipment will be adequately muffled and maintained.
- No piece of equipment which generates maximum noise levels greater than 85 dBA measured at 50 feet will be allowed on site.

**Cultural Resources Eligibility Evaluations.** If the SEHOA or contractor suspects that unanticipated buried cultural deposits or human remains have been encountered during any phase of project implementation, soil disturbance and construction work within 50 feet of the deposit will cease and a qualified archaeologist will be contacted immediately and retained to evaluate the significance of the discovery.

**Protect Undiscovered Human Remains.** If potential human remains are discovered during any project activities, ground-disturbing activity within 50 feet of the discovery will be halted and the R.O. Anderson project engineer will be contacted immediately to coordinate evaluation of the remains by a professional archaeologist. If the remains are human, the Mono County coroner will be notified immediately according to Section 5097.98 of the State Public Resources Code and Section 7050.5 of California's Health and Safety Code. If the remains are determined by the Mono County coroner to be Native American, the Native American Heritage Commission (NAHC) will be notified within 24 hours. The NAHC will identify a Most Likely Descendant who will be designated to cooperate with R.O. Anderson, the lead agency, and the landowner to arrange for the proper disposition of the remains, according to the NAHC guidelines for the treatment and disposition of human remains.

**Comply with Mono county Development Standards Floodplain Regulations - 21.160 Standards of Construction.**

In areas of special flood hazard, the following standards are required:

A. Anchoring

- New construction and substantial improvements will be anchored to prevent flotation, collapse or lateral movements of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.
- Manufactured homes will meet the anchoring standards of Section 21.190.

B. Construction Materials and Methods

- New construction and substantial improvements will be constructed with materials and utility equipment resistant to flood damage.
- New construction and substantial improvements will be constructed using methods and practices that minimize flood damage.
- New construction and substantial improvements will be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during flooding.

### C. Elevations and Floodproofing

- New construction and substantial improvement of any structure will have the lowest floor, including basement, elevated to or above the base flood elevation (i.e., the depth number specified in feet on the FIRM), or at least two feet above the highest adjacent grade if no depth number is specified. Nonresidential structures may meet the standards in Section 21.160.C.2. Upon the completion of the structure the elevation of the lowest floor including basement, will be certified by a registered professional engineer or surveyor, or verified by the county building inspector to be properly elevated. Such certification or verification will be provided to the Floodplain Administrator.
- Non-residential construction will either be elevated in conformance with Section 21.160.C.1. together with attendant utility and sanitary facilities:
  - a. Be floodproofed so that, below the base flood level, the structure is watertight with walls substantially impermeable to the passage of water.
  - b. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and,
  - c. Be certified by a registered professional engineer or architect that the standards of this subsection are satisfied. Such certifications will be provided to the Floodplain Administrator.
- Require, for new construction and substantial improvements, that fully enclosed areas below the lowest floor that are subject to flooding will be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:
  - a. Either a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding will be provided. The bottom of openings will be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves or other coverings or devices provided that they permit the entry and exit of flood waters; or,
  - b. Be certified to comply with a local floodproofing standard approved by the Federal Insurance Administration.
- Manufactured homes will also meet the standards in Section 21.190.

### D. 21.170 Standards for Utilities

- New and replacement water supply and sanitary sewage systems will be designed to minimize or eliminate infiltration of flood waters into the system and discharges from the system into flood waters.
- On-site waste disposal systems will be located to avoid impairment to them, or contamination from them during flooding

### 1.2.K *Permitting*

**1.2.K.1 Mono County**

The Mono County Community Development Department (CDD), consisting of the Planning, Building and Code Compliance divisions, provides a variety of development services for the unincorporated areas of the county. The CDD will require a Building Permit.

The Mono County Public Works Department will require a Grading Permit and a waiver for development of a non-residential structure within the 100-year floodplain of the Walker River.

The Mono County Environmental Health Department

**1.2.K.2 Great Basin Unified Air Pollution Control District  
(GBUAPCD)**

Although no specific air quality plans are applicable to the project site, the GBUAPCD requires compliance with state and federal air quality standards. The project applicant must obtain permits for land disturbance with the GBUAPCD prior to operations. Compliance with permit conditions will assure that the Project does not degrade air quality.

### **1.3 Lead Agency**

Mono County will serve as the Lead Agency as defined by the California Environmental Quality Act (CEQA). The Mono County Community Development Department is processing this document for public review and comment. The approval of this project and certification of this Initial Study and Negative Declaration will be Louis Molina, REHS / Environmental Health Director, Mono County Health Department.

### **1.4 Environmental Review**

Mono County will use this Initial Study to identify potential environmental constraints associated with the Project and to solicit input regarding the Project from agencies and the general public. This document is prepared in accordance with CEQA and the CEQA Guidelines. This Initial Study will also be used in support of a Negative Declaration when considering the approval of the project. The federal USEPA funding requires that the environmental effects of the actions proposed under the Drinking Water State Revolving Fund (DWSRF) grant program be subject to the National Environmental Policy Act (NEPA).

The State Water Board is required to comply with CEQA when funding a project. The DWSRF Program receives partial funding from the USEPA. Due to the federal nexus with USEPA, projects pursuing DWSRF financing must also comply with requirements of the federal authorities and environmental statutes (referred to as the federal cross-cutters). The Environmental Review Unit in the Division of Financial Assistance fulfills the State Water Board's responsibility to comply with CEQA and federal environmental laws by reviewing the environmental documents provided by the applicant and developing the State Water Board's environmental findings.

The Draft Initial Study will be circulated for public and agency review from September 10, 2015 to October 9, 2015. Copies of the document are available during normal operating hours at the Mono County Community Development Department offices in Bridgeport located at 74 North School Street, Annex 1, Bridgeport, CA and in Mammoth Lakes at 437 Old Mammoth Road, Minaret Village Mall, Suite P, Mammoth Lakes, CA . The document can be found online at the following web address: <http://monocounty.ca.gov/planning/page/projects-under-review>

Comments on this document must be received by 5:00 p.m. on October 9, 2015. Comments can be e-mailed to [glefrancois@mono.ca.gov](mailto:glefrancois@mono.ca.gov) or sent via mail to:

C/O Gerry LeFrancois, Principal Planner  
Mono County Community Development Department  
P.O. Box 347  
Mammoth Lakes, CA 93546

Approval of this Initial Study and Negative Declaration will be the week of October 12, 2015, after the close of comments. The Mono County Environmental Health Department will be certifying this document.

## 1.5 General Plan Designation

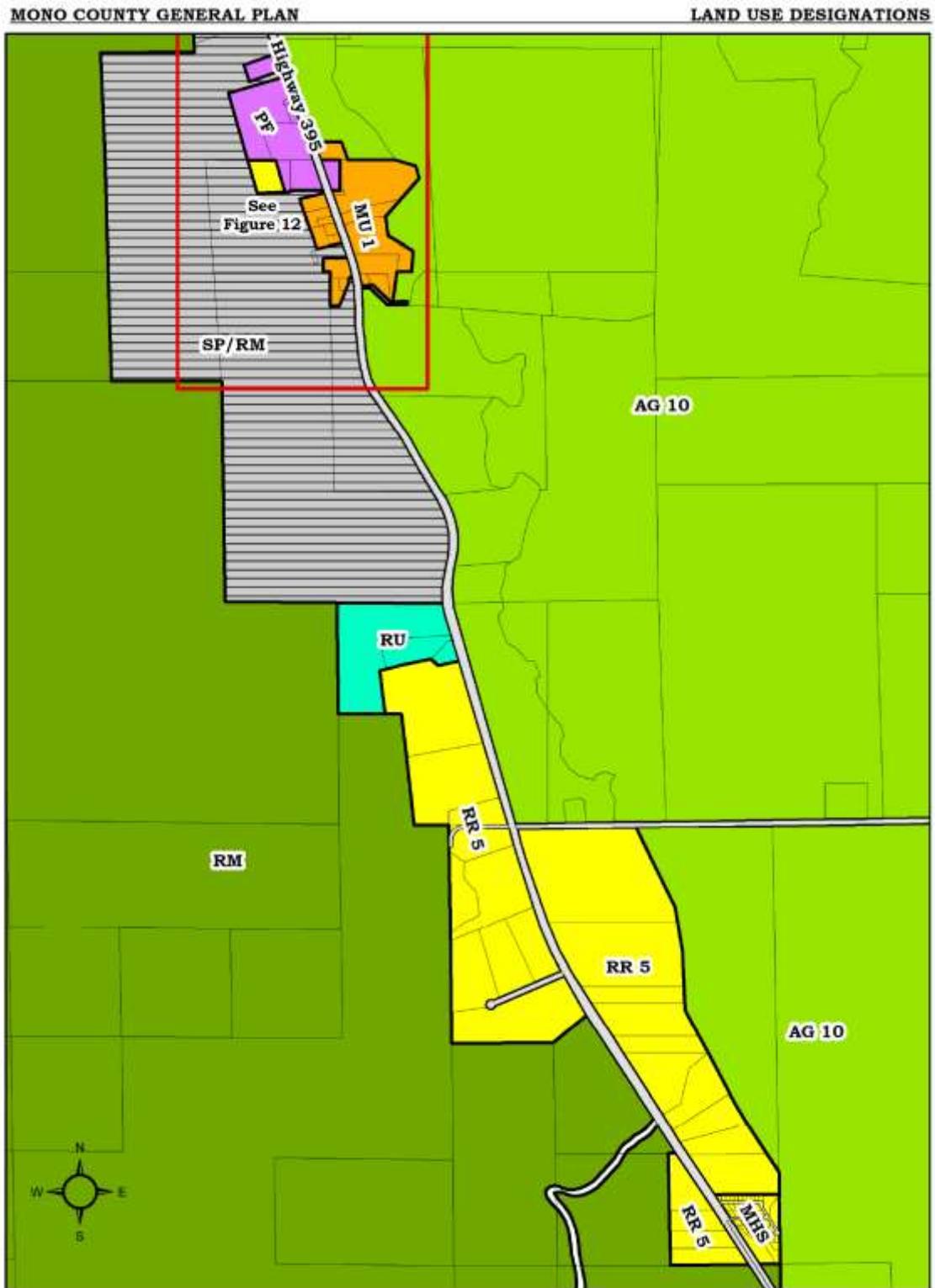
The Mono County General Plan land use designation is a general category or class of land use activity (e.g., “residential,” “commercial” or “industrial”) that is permitted to occur on specific parcels of land in the unincorporated area of the county that have been duly assigned that designation by the County pursuant to the Land Use Element of the General Plan. Land use designations are generally described in Section IV of the Land Use Element and their specific assignments to individual parcels of land in the unincorporated area of the county are depicted in the Land Use Maps set forth in Section VII of the Land Use Element. Because assigned land use designations essentially create regulatory boundaries or areas within which certain permitted uses may occur, parcels of land are sometimes described under these Land Development Regulations as being located within their assigned land use designations.

The proposed Project will be located in an area designated as a Manufactured Housing Subdivision land use district (MHS) as defined in the Mono County General Plan. Manufactured Housing Subdivisions may be allowed, subject to a Use Permit and Tract Map application, in the following land use designations: MFR-H (Manufactured Home Site), ER (Estate Residential) and RR (Rural Residential). The project site is surrounded by other residential, resource protection, and agricultural land uses and properties designated Residential (RR-5), Resource Management (RM) and Agriculture (AG-10).

The Mono County General Plan designates land use for the project area is depicted on Land Use Designation Map Figure 11 – Coleville Area, which is included below as Figure 1-G.



Figure 1-G: Mono Land Use Designations Map –Coleville Area



Coleville Area

Figure 11

## Chapter 2: Environmental Setting

### 2.1 Setting Overview

The Sierra East Homeowner Association (SEHOA) is located in Mono County between the communities of Coleville and Walker, which are located along US Highway 395. The SEHOA covers an area of approximately 8.24 acres and services approximately 29 single family residential connections. The SEHOA sits east of US Highway 395 and west of the West Fork of the Walker River in the southern portion of Antelope Valley at an elevation of approximately 5,264 feet above mean sea level. The foothills of the Sierra Nevada lie just to the west of the SEHOA, with the mountains themselves being just a few miles further west.

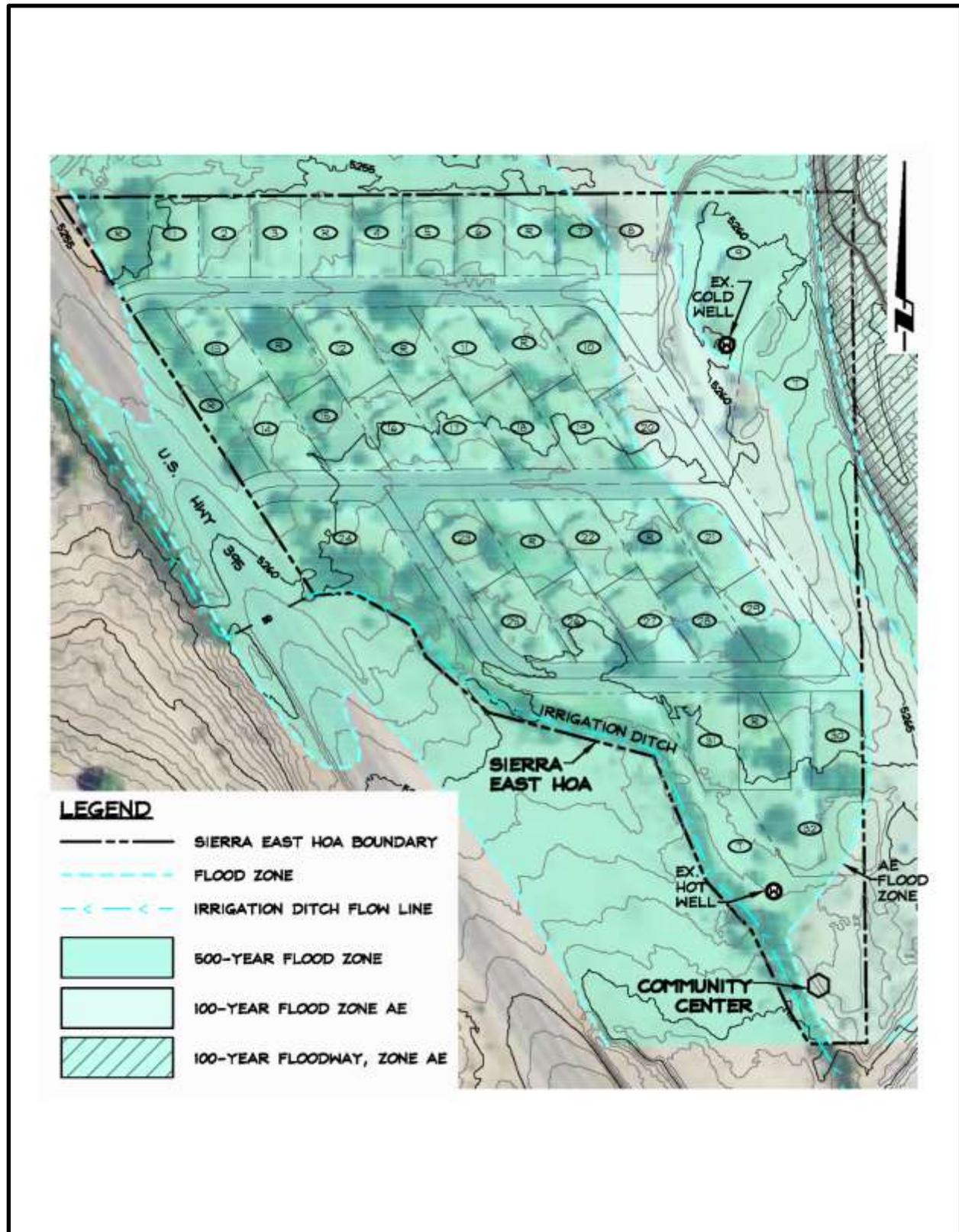
The Project proposes to rehabilitate the existing water supply wells, install water meters and an emergency propane generator, construct a new mechanical building, and install an arsenic removal system to comply with the federal drinking water standard and begin removing naturally occurring arsenic from the potable water supply. The Project will affect a triangular area of approximately 0.22 acres within SEHOA property, as shown in Figure 2-A, Existing Site Conditions. The site is entirely contained in the southeast corner of Section 18, Township 18 North, Range 23 East, Mount Diablo Meridian (38,531 degrees, -119.489 degrees).

### 2.2 Human Environment

#### 2.2.A Land Use

The SEHOA property is presently developed and comprised of 45 parcels, bearing Mono County Assessor Parcel Numbers 0247001 through 0247044 and 0247046 and containing the existing water supply wells and distribution system, access roads and community buildings, as illustrated in Figure 2-A. There are 10 unbuildable lots and the two lots designated as greenbelt (also referred to as common area lots). The SEHOA currently has 29 equivalent dwelling units or EDU's, with 2 additional EDU's that could be built in the future. The principal land uses (not including open space or wild lands) in the area are agricultural and residential, with some scattered commercial uses. As shown in Figure 2-A, the 0.22 acres project site is bordered to the north by the Sierra East residential community; to the east by the West Walker River; to the south by undeveloped land; and to the west by a drainage ditch and US Highway 395.

Figure 2-A. Existing Site Conditions



The existing structures on the project site include:

- A 4 foot by 8 foot shed that houses a pump;
- An octagonal building that houses the existing water system and community hot tub;
- A 1.5 foot tall rock wall along the western and southern perimeters of the common area;
- A 6 foot wide by 3 foot deep drainage ditch that collects and diverts water northwest of the project site; and
- A wooden fence along the eastern property line.

## 2.2.B Existing Public Services and Facilities

### 2.2.B.1 Water Supply, Distribution and Wastewater

Water service (including wastewater) in the area is provided by individual wells and septic systems, as generally shown on Figure 2-A. Sewer service is provided by gravity lines that feed to septic tanks on SEHOA common area parcels, with three contributing lots per septic tank being typical. Domestic water is supplied by 3-inch mains with  $\frac{3}{4}$ -inch laterals connected to each home. Common area lots are supplied water for irrigation through a combination of individual services from the 3-inch main and yard hydrants connected to the water system on private lots. Most water laterals have  $\frac{3}{4}$ -inch stop and waste valves located underground adjacent to the streets. The distribution lines are dead end lines with no ability for flushing. The existing water system is supplied by two wells known as Well 1 and Well 2. Well 1 yields hot water (up to 145° F) and Well 2 yields cold water, which, for obvious reasons, they are also commonly referred to as “Hot Well” and “Cold Well”, respectively. The wells both pump to a common mechanical room that houses an approximate 900-gallon hydro-pneumatic tank with distribution piping and electrical controls. Also included in the mechanical room are dual sodium hypochlorite storage tanks and metering pumps that are used for disinfecting the domestic water supply.

There are currently no fire hydrants and the water system is not designed for fire suppression with minimal storage and minimal flows. Figure A shows existing water facilities for the SEHOA. Presently there are no water meters on the SEHOA water system, and no records of measured rates of water consumption are available. Based upon a qualitative analysis of usage from similar residences in the area, an expected annual average use of 200 gallons per day per home, however, other communities along the eastern Sierra Nevada Mountains often have

large increases in water usage during summer months. This seasonal increase is most likely attributable to irrigation and other summer time activities, and the water usage can be double or even triple that of winter time months. In addition to the obvious water uses for irrigation during summer months, the SEHOA is also subject to a population influx by seasonal residents, which is partially why the difference between irrigation season and offseason water consumption is so large.

### 2.2.B.2 Power, Gas and Communications

The project site is provided power through Liberty Utilities (formerly California Pacific Electric Company) who maintains underground lines and services. Telephone is through Frontier Communications with underground lines generally located in common trenches with the power. Gas is provided through AmeriGas Propane with storage tanks on SEHOA common area parcels and service is via underground lines with meters at each place of use.

Electrical meters located at each well measure the kilowatt-hour (kWh) electrical consumption used by the well pumps. The Cold Well has a meter that is dedicated generally to the well pump with minor power consumed by an irrigation controller, while the Hot Well has a meter dedicated to well pump and electrical service within the existing mechanical room, including lights and chlorine metering pumps.

### 2.2.C Noise

There are a variety of noise sources in the SEHOA and immediate vicinity which can be divided into two categories: mobile sources and stationary sources. Examples of mobile sources include automobiles, trucks, airplanes, buses, motorcycles, and other vehicles. Fixed source examples include power equipment, water supply equipment and other activities such as group recreational activities. The main sources of noise in the project site are noises generated from the adjacent road and potentially recreational use of the West Walker River. The noise levels around the site are low and typical of a moderate density, residential environment.

Noise standards for the project site include a maximum 35 dBA (10 p.m. to 7 a.m.) and 45 dBA (7:00 a.m. to 10:00 p.m.) interior and 50 dBA (10 p.m. to 7 a.m.) and 55 dBA exterior in suburban multi-family residential (receptors) land use category (Mono County Code Chapter 10.16 1983). The standard on noise related to construction for a single event is 85 dBA. The

limits placed by Mono County Code Noise Ordinance on construction lasting over 10 days are shown in Table 2-A. Noise sources in the general project vicinity are mainly produced from passing cars and standard residential noises.

<b>Table 2-A: Maximum Noise Levels of Repetitively Scheduled, Long-Term Operations</b>			
	Type I Areas Single-Family Residential	Type II Areas Multi-family Residential	Type III Areas Semi-Residential Commercial
Daily, except Sundays & legal holidays 7 a.m. to 7 p.m.	60 dBA	65 dBA	70 dBA
Daily, 7 p.m. to 7 a.m. & all day Sunday & legal holidays	50 dBA	55 dBA	60 dBA

**Source:** Mono County Code Table 10.16.090A

### 2.2.D *Traffic and Transportation*

Performance conditions, or Levels of Service (LOS—see Glossary), on State and Federal highways are set by California Department of Transportation (Caltrans) systems planning. Performance conditions on local streets are generally not a concern since local streets typically carry only local traffic. State and federal highways serve as the main access to each community in Mono County and carry the greatest amount of traffic. US Highway 395 has LOS B, and C, for the 4-lane expressway, and 4-lane conventional. At the entrances to SEHOA, US Highway 395 is a 2-lane conventional highway.

### 2.2.E *Hazards and Hazardous Materials*

Geotechnical explorations conducted on December 218, 2014 found no surface or subsurface hazardous substances in the areas of excavations (Black Eagle Consulting 2015).

Finally, there are no hazardous material sites or releases listed in the Toxic Release Inventory (DTSC 2010a) in project site. A search of the Department of Toxic Substances Control (DTSC) EnviroStor website (DTSC 2010b) listed no sites or facilities near the project site.

### 2.2.F *Cultural Resources*

ASM Affiliates, Inc. conducted at Class III cultural resources inventory for the Project’s Area of Potential Effects (APE) on June 16, 2015.

ASM contacted the Native American Heritage Commission (NAHC) on May 4, 2015 in order to

determine if there are any registered cultural resources, sacred lands, traditional cultural properties, or areas of heritage sensitivity within the project area. The NAHC responded on May 27, 2015 that they had no records pertaining to the presence of Native American cultural resources in the project area. As part of the consultation process, the NAHC provided information for six Native American contacts for four nearby groups including the Bridgeport Paiute Indian Colony, the Mono Lake Indian Community, the Washoe Tribe of Nevada and California, and the Walker River Paiute Tribe. ASM sent a letter via email and/or fax to the chairperson and/or Tribal Historic Preservation Officer (THPO) of each tribe in order to request information they might have concerning the project area. After two weeks, ASM had not received any replies to the letters and on June 12, 2015, followed up with phone calls to each of the contact organizations. In each case, a voicemail or message was left for the appropriate contact. As of June 22, 2015, none of the contacted tribes have responded to ASM's inquiry.

Results of a records search conducted by the Eastern Information Center at the University of California, Riverside, for the APE and a ½-mile buffer surrounding the APE were received on May 4, 2015. The search indicated that five cultural resource inventories had been conducted within a ½-mile radius, none of which overlapped the current APE. Identified cultural resources were limited to two isolated obsidian bifaces recorded within a ½-mile radius of the project area during a 1979 survey. ASM conducted a survey of historic maps, which indicated that the irrigation ditch following the western boundary of the SEHOA property likely dates to the first half of the twentieth century.

The location of the new Cold Well is located towards the northern boundary of the SEHOA property in a landscaped area covered with decomposed granite approximately 90 feet (ft.) from the current course of the West Walker River. This location was inventoried, but the natural ground surface could not be inspected due to the presence of landscaping ground cover. A review of aerial photography and topographic maps of the area indicates that the terrace where the Cold Well will be installed was constructed between 1994 and 1998. The upper layers of the terrace were undoubtedly constructed using fill material or secondary alluvial material before being covered with decomposed granite. Although the natural ground surface could not be inspected, it would have been located in the West Walker River bed and, accordingly, is unlikely to retain any cultural resources even if the course of the West Walker River has changed over time.

Area designated for a Hot Well cooling loop as well as a pump and mechanical room, both of which require ground-disturbing activities is located at the southern SEHOA property boundary. Although the sandy silt at this location appears to represent the natural ground surface of the West Walker River floodplain, the ground within the APE has already been significantly impacted by the construction of a low rockery wall and four associated yard hydrants to create a low terrace. The interior of the APE also appears to have been graded to create a relatively level surface for use as a common area and the construction of an octagonal community center. Various utilities have also been installed including a light pole, Hot Well, and water lines that supply the existing community center. A small spoils pile in the southeast corner of the APE may be the result of various impacts to the area; it was inspected by ASM but did not appear to have any associated cultural material. Although the historic irrigation ditch is located just outside of the APE along the western edge of the southern SEHOA property, it will not be disturbed or impacted by ground-disturbing activities.

No cultural resources were identified on the ground surface of either parcel during the survey and no historic properties will be affected by the project as it is currently planned. Even though the proximity of the APE to the West Walker River increases the probability of encountering both prehistoric and historic cultural resources, modern modifications to the property including construction, landscaping, and utility work decreases the likelihood that an intact resource will be located.

## **2.3 Physical Environment**

### *2.3.A Topography*

Topography was derived from LiDAR data provided by the Desert Research Institute (DRI). The LiDAR data was collected as a part of the Walker Basin Project which was flown during 2010-2011. The LiDAR was available as a Digital Elevation Model (DEM) with 1-meter cell resolution. The DEM was used to develop 1-foot contour intervals over the project area. The topography is presented in Figure 2-A. The project site is within a relatively flat area that gently slopes about 1 percent to the east and towards the West Walker River. The vertical relief across the project site is less than 2 feet. The 1.5 foot rock wall creates a grade break in the slope between the

western portion of the SEHOA property and the project site where the improvements will be constructed.

### 2.3.B Air Quality

The project site is located within the jurisdiction of the Great Basin Unified Air Pollution Control District (GBUAPCD). The project site has attainment status by federal standards and non-attainment status by state standards for PM<sub>10</sub> and Ozone (GBUAPCD and USEPA). The GBUAPCD does not monitor air quality in the Antelope Valley (GBUAPCD 2009). At the state level, Mono County has been designated as non-attainment for ozone and PM<sub>10</sub>; attainment for PM<sub>2.5</sub>, carbon monoxide, hydrogen sulfide, lead, sulfates, sulfur dioxide, and nitrogen dioxide; and unclassified for visibility reducing particulates. Federal and California ambient air quality standards for criteria pollutants are summarized in Table 2-B. If construction grading is performed during dry weather, a moderate to high potential for dust generation exists.

<b>Pollutant</b>	<b>Average Time</b>	<b>Federal Standards</b>	<b>Federal Attainment Status</b>	<b>California Standards</b>	<b>California Attainment Status</b>
Ozone	1-Hr. 8-Hr.	-- 0.075 ppm	Unclassified/ Attainment	0.09 ppm 0.070 ppm–	Non-Attainment
Carbon Monoxide	1-Hr. 8-Hr.	35.0 ppm 9.0 ppm	Unclassified/ Attainment	20.0 ppm 9.0 ppm	Attainment
Nitrogen Dioxide	Annual 1-Hr.	0.053 ppm 100 ppb	Unclassified/ Attainment	– 0.25 ppm	Attainment
Sulfur Dioxide	Annual 24-Hr. 1-Hr.	0.030 ppm 0.14 ppm 75 ppb	Unclassified/ Attainment	– 0.04 ppm 0.25 ppm	Attainment
PM <sub>10</sub>	Annual 24-Hr.	50 µg/m <sup>3</sup> 150 µg/m <sup>3</sup>	Attainment for areas north of Big Pine (including project site)	20 µg/m <sup>3</sup> 50 µg/m <sup>3</sup>	Non-Attainment
PM <sub>2.5</sub>	Annual 24-Hr.	12.0 µg/m <sup>3</sup> 35 µg/m <sup>3</sup>		12 µg/m <sup>3</sup> –	Attainment

<b>Table 2-B: Mono County Federal and State Air Quality Attainment Status</b>					
<b>Pollutant</b>	<b>Average Time</b>	<b>Federal Standards</b>	<b>Federal Attainment Status</b>	<b>California Standards</b>	<b>California Attainment Status</b>
Lead	30-Day Calendar Quarter	– 1.5 µg/m <sup>3</sup>	NA	1.5 µg /m <sup>3</sup> --	Attainment
	Rolling 3-Month Average	0.15 µg/m <sup>3</sup>		--	
ppm = parts per million ppb = parts per billion µg/m <sup>3</sup> = micrograms per cubic meter N/A = not available					

Source: CARB 2013

### 2.3.C *Geology and Geologic Hazards*

The project site lies in the fault-bounded Antelope Valley located on the Eastern Sierra Nevada range front. The California Geological Survey (CGS) maps the project site as Quaternary Alluvium (Koenig 1992). The geologic unit is described as “stream and river alluvium, glacial outwash, and recent fan deposits”. Although the valley is sinking slowly, it is filling with sediments derived from the Sierra almost as fast as it sinks. As is the case further south, springs and geothermal activity are concentrated along (but not limited to) zones of weakness at the margins of the valley. Granitic mountains of the Sierra Nevada border the valley on the west, and Tertiary-aged volcanic form the eastern border of the valley. Abundant cobbles and boulders existing within the subsurface soil profile. No other geologic hazards are identified (Black Eagle Consulting 2015).

### 2.3.D *Faulting and Seismicity*

In the SEHOA area, Sierra Nevada range-front faults run generally north-northwest along the base of the Sierra Nevada. Principal among these is the Antelope Valley fault system. The fault system forms the range-front scarp of the Sierra Nevada and in some areas can place the igneous, metamorphic and volcanic rocks in the area against the valley fill. The project site is located in Seismic Zone 4 (Uniform Building Code 1997) and situated in the Antelope Valley in

the general area of a known active fault, the Antelope Valley Fault. The historic earthquake magnitudes within a search radius of 70 miles ranged from 6.0 to 9.0.

Geotechnical investigations conducted on December 18, 2014 determine that the proposed project components will not cross the designated fault hazard zone. However, the project site is located within the Earthquake Fault Zones (EFZ) defined by Alquist-Priolo Earthquake Fault Zone Act (1993), as shown on the map for Desert Creek Peak SW ¼ Quadrangle (Hart and Byant 2007). THE EFZ is associated with the Holocene active Antelope Valley Fault that is mapped on the west side of US Highway 395 about 500 feet of the project site. This fault is estimated as having the potential to generate maximum earthquake magnitude of 6.7 Mm (Black Eagle Consulting 2015).

Fault trenching conducted on December 18, 2014 found no evidence of faulting or ground rupture in the area of the proposed mechanical building. Although the likelihood of ground rupture is low based on geotechnical explorations, the potential for severe ground shaking is high because of the project site's proximity to the potentially active Antelope Valley Fault.

Mapping by the United States Geological Society (USGS 2013) indicates that there is a 2 percent probability that a bedrock ground acceleration of 0.64g will be exceeded in any 50-year interval.

### 2.3.E *Soils*

The soils encountered during December 18, 2014 geotechnical explorations are consistent with the geologic map and consist entirely of sand and gravel with non-plastic fines to excavation depths to seven feet below ground surface. The upper soil layer is 0.5 to 1.5 feet in thickness and generally contains silty sands to silty sand with gravel soils. Underlying soil layer consists of poorly graded gravel with silt, cobbles, and boulders. Due to the dense nature of the site soils, presence of oversized particles, and the relatively deep groundwater table, the potential for soil liquefaction at the site is considered negligible (Black Eagle Consulting 2015).

### 2.3.F *Hydrology and Flooding*

Site drainage occurs primarily as sheet flow to the east towards the West Walker River. Much of the SEHOA is located within a Federal Emergency Management Agency (FEMA) 500-year floodplain, which is subject to a 0.2% chance of flooding during any given year. Portions of the

SEHOA, particularly on the east side are located within a 100-year Zone AE floodplain, which is shown as a breakout from the West Walker River. This breakout generally flows to the north through the SEHOA streets and impacts up to eight parcels, one that is vacant and buildable and another that is vacant and not buildable due to its location in the floodplain and restrictions placed by the owner, Mono County. The floodplain boundaries are generally depicted in Figure 2-A. The 100-year base flood elevation in the area is 5,264 feet above mean sea level (FEMA 2011).

### 2.3.G *Groundwater*

The SEHOA is within the Antelope Valley Groundwater Basin and within the North Lahontan Hydrologic Study Area (California Department of Water Resources 2003). Groundwater in the area is generally found within the unconsolidated alluvial and fluvial sediments comprising the basin fill. The ability for the faults, discussed in Subsection 2.3.D above, to inhibit groundwater flow is unknown because significant differences in groundwater quality can be present from one side of a fault to the other.

Groundwater was not encountered during geotechnical explorations, which extended to seven (7) feet below ground surface to a similar surface water elevation of the West Walker River. During the river flood stage the depth of groundwater would be expected to rise towards the surface to meet the floodway.

### 2.3.H *Water Quality*

The groundwater quality in the Antelope Valley is variable but generally of good quality. Glancy (1971) reported that groundwater present in the area typically had total dissolved solids (TDS) concentrations of approximately 175 to 350 milligrams per liter (mg/L). Boron, fluoride and arsenic have been noted in wells in the valley, and radionuclides were present above their MCL for two out five wells sampled (California Department of Water Resources 2003) in the Antelope Valley. In the SEHOA area, groundwater quality results are available for six wells including the two SEHOA wells. TDS concentrations in these wells range from 79 mg/L in the Codtz Well (south of SEHOA) to 250 mg/L in the Strong Well (north of the SEHOA). Of note is an abrupt change in TDS concentration between the Strong and Vandendrake Wells, across a north-trending geologic structural lineament.

Arsenic concentrations (MCL of 10 µg/L) in the SEHOA area range from 1.2 µg/L at the Cortez Well on the south and 15 µg/L in the Kraft Well to the north, to a high concentration of 57 µg/L in the Strong Well. The two SEHOA wells have average arsenic concentrations of 38 and 37 µg/L, respectively. Elevated uranium concentrations in the area generally trend with elevated arsenic concentrations. The California Public Health Goal (PHG) for uranium is 20 pCi/L (approximately 0.030 mg/L). The wells in the SEHOA area are significantly below the PHG for uranium.

A brief summary of the SEHOA water quality is presented below as Table 2-C, and a more detailed summary of water quality is included in the Preliminary Engineering Report attached as Appendix A. The main water quality concern for the SEHOA is the presence of elevated arsenic above the MCL of 10 µg/L. Arsenic is a toxic substance and as such its ingestion may result in adverse health conditions. While the concentrations of arsenic in both of the SEHOA source wells vary, the last several tests (since July of 2011) have shown arsenic concentrations substantially higher than the MCL. Arsenic is typically present in groundwater as two naturally occurring species – arsenite (As III) and arsenate (As V). The latter species, arsenate, is the oxidized form of the former, and is more readily removed by various treatment systems. Arsenite, on the other hand, tends to be much more difficult to remove in its natural condition and subsequently must be oxidized into Arsenate prior to removal from water. Testing indicates that arsenic present in SEHOA's source water from the Cold Well is almost entirely (>99%) in the oxidized form, i.e. – *Arsenate*. The source water from the Hot Well is approximately 86 percent oxidized in the form of arsenate. Therefore, oxidation by chlorination prior to removal is beneficial.

In the past there have been bacteriological concerns associated with the water quality from the Cold Well. Some past water samples taken from the Cold Well tested positive for the presence of bacteria, which caused the well to be considered as potentially “*groundwater under the influence of surface water*” according to the Mono County Health Department Division of Environmental Health (Department). It is possible that the previous tests were actually false-positives due to errors caused by improper sampling techniques, because subsequent bacteriological tests for the Cold Well conducted since July of 2011 have been negative. Table 2-C presents the available results of testing for bacteriological contamination that have been conducted monthly since July of 2012. Testing had previously been performed on a quarterly basis.

**Table 2-C: Bacteriological Testing at SEHOA**

<b>SAMPLE DATE</b>	<b>TOTAL COLIFORM</b>	<b>MOST PROBABLE NUMBER</b>
03/26/2012	Negative	No Detection
04/23/2012	Test not Performed	<1.0
07/02/2012	Test not Performed	<1.1
07/30/2012	Negative	No Detection
08/10/2012	Negative	<1.1
09/04/2012	Negative	<1.1
10/03/2012	Negative	<1.1
11/05/2012	Negative	<1.1
12/06/2012	Negative	<1.1
01/02/2013	Negative	<1.1
02/04/2013	Negative	<1.1
03/04/2013	Negative	<1.1
04/03/2013	Negative	<1.1
05/15/2013	Negative	No Detection
06/10/2013	Negative	No Detection
07/01/2013	Negative	No Detection
08/01/2013	Negative	No Detection
09/09/2013	Negative	No Detection

\*Most Probable Number varies between 1.0 and 1.1 as a result of laboratory detection limits.  
Source: Preliminary Engineering Report (Appendix A)

The total coliform tests results are negative, indicating the absence of bacteria in the Cold Well. This is further supported by the enumeration testing shown in the most probable number (MPN) column, which had results below the laboratory detection limit as indicated by the “less than” symbol (<).

Essentially, the enumeration testing indicates the absence of bacteriological contamination at the Cold Well, and since the total coliform tests also include sample points downstream in the system at various residential taps, results indicate that the water system does not have a localized bacteriological contamination either. Based on the results in Table 2-C, there is a strong indication that surface water does not presently influence the Cold Well. Initial conversations with the Department indicate that the County may be willing to accept the test results listed as sufficient for determination regarding the influence of surface water on the Cold Well.

One water quality sample taken from the Hot Well tested for fluoride in excess of the California MCL of 2.0 mg/L (Federal Secondary MCL) at a concentration of 3.0 mg/L. While the water temperature of the Hot Well requires blending with water from the Cold Well or time to cool

before consumption, there are no other water quality parameters impairing the existing SEHOA source water.

### 2.3.1 *Biology*

#### 2.3.1.1 **General Habitat, Vegetation, and Wildlife**

The site has been previously disturbed, stripped of native vegetation, and partially landscaped with turf grass. Native sage brush is located beyond the limits of the proposed improvements. A reconnaissance level field survey to assess habitat conditions and evaluate the project site's potential to support special-status plant and/or animal species was performed by Sierra Ecotone Solutions (SES) biologists on May 12, 2014. SES biologists, Amy Parravano and Garth Alling, walked the project area to perform the visual survey to record the existing vegetation types, wildlife habitat, presence of sensitive natural communities, and the approximate location and extent of wetland features. A detailed botanical survey was performed as well as a passive survey for wildlife species observed within the project area.

Wildlife species assemblage information was based upon existing documentation and information gathered from the *California Wildlife Habitat Relationships System* (CDFG 2008) and *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer 1988). Plant communities in the project area include Desert Riparian, Sagebrush and Urban. Wildlife habitats onsite include Montane Cottonwood Riparian Forest, Great Basin Sagebrush Scrub (nomenclature follows Sawyer Keeler Wolf 2009). The Desert Riparian habitat is located only in the northeast corner of the project area where the flood zone of the West Walker River is present. The remainder of the project area is Urban, as it is currently developed, and the remainder of the project area is designed as Sagebrush, including the location where the proposed development is to occur. Based on the existing development, the site is currently heavily disturbed with rip-rap along the West Walker River flood zone, fences and vegetation clearing with planting of ornamentals along the eastern portion of the site.

#### 2.3.1.2 **Special Status Species**

The project site is located within the USGS Coleville 7.5-minute topographic quadrangle. The California Department of Fish and Wildlife Natural Diversity Database (CNDDDB 2015) was run on March 19, 2015 for records of special-status species occurrences within the Coleville 7.5

min Quad map and surrounding 7.5 min Quads (Topaz Lake, Heenan Lake, Wolf Creek, Disaster Peak, Lont Cannon Peak, Chris Flat, Risue Canyon, Long Dry Canyon). Additionally, a species list was obtained from the US Fish and Wildlife Service (USFWS) for Inyo County on March 19, 2015 and a report was run for the Coleville 7.5 min Quad Map (and associated nine Quads noted above) to focus the data from USFWS. Additionally, the California Native Plant Society (CNPS) database was searched for sensitive and rare plants in Riparian forest habitat in the nine 7.5 min Quad Maps surrounding and including Coleville CA. The database query results and a copy of the USFWS letter are available in Appendix D, which attaches the Biological Assessment Memorandum. Table 2-D lists the plant species observed and Table 2-E lists the wildlife species observed during the May 12, 2014 site survey.

<b>Table 2-D: Plants Species Observed During Site Survey</b>	
<b>SCIENTIFIC NAME</b>	<b>COMMON NAME</b>
<i>Cupressus sp.</i>	Ornamental cypress
<i>Pinus sp.</i>	Ornamental pine
<i>Amelanchier utahensis</i>	Pale leaved serviceberry
<i>Artemesia tridentata ssp. tridentata</i>	Great Basin sagebrush
<i>Artemesia ludoviciana ssp. ludoviciana</i>	Silver wormwood
<i>Artemesia spinescens</i>	Budsage
<i>Bromus tectorum</i>	Cheat grass
<i>Ceanothus leucodermis</i>	Chaparral whitethorn
<i>Chrysothamnus viscidiflorus ssp.</i>	Sticky Leaved Rabbitbrush.
<i>Ephedra viridis</i>	Green ephedra
<i>Ericameria nauseosa var. oreophila</i>	Rubber rabbitbrush
<i>Eriogonum umbellatum var. nevadense (no flower)</i>	Sulfur buckwheat
<i>Erodium cicutarium</i>	Redstem filaree
<i>Eschscholzia californica</i>	California poppy
<i>Hordeum jubatum</i>	Fox tail barley
<i>Muhlenbergia minutissima</i>	Annual muhly
<i>Pinus monophylla</i>	Pinyon pine
<i>Populus balsamifera ssp. trichocarpa</i>	Black cottonwood
<i>Prunus emarginata</i>	Bitter cherry
<i>Purshia tridentata var. tridentata</i>	Antelope brush
<i>Rosa woodsii ssp. ultramontana</i>	Interior rose
<i>Salix exigua</i>	Narrowleaf willow
<i>Tetradymia canescens</i>	Gray horsebrush

Source: Sierra Ecotone Solutions 2015

<b>Table 2-E: Wildlife Species Observed During Site Survey</b>	
<b>SCIENTIFIC NAME</b>	<b>COMMON NAME</b>
<i>Agelaius phoeniceus</i>	Red-winged blackbird

<i>Anas platyrhynchos</i>	Mallard
<i>Buteo jamaicensis</i>	Red-tailed hawk
<i>Carpodacus mexicanus</i>	House finch
<i>Cathartes aura</i>	Turkey vulture
<i>Corvus corax</i>	Common raven
<i>Callipepla californica</i>	California quail
<i>Coccothraustes vespertinus</i>	Evening grosbeak
<i>Euphagus cyanocephalus</i>	Brewer's blackbird
<i>Hirundo rustica</i>	Barn swallow
<i>Turdus migratorius</i>	American robin
<i>Tyrannus verticalis w</i>	Western kingbird
<i>Zenaida macroura</i>	Morning dove
<i>Odocoileus hemionus</i>	Mule deer

Source: Sierra Ecotone Solutions 2015

## 2.4 Other Public Agencies Whose Approval is Required

**Federal Emergency Management Agency (FEMA)** – The FEMA requires a Development Permit for development within the Special Flood Hazard Area (SFHA) shown on a Flood Insurance Rate Map (FIRM). Per *44 CFR 59. Definitions: "Development" means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.* The requirements are keyed to “development” in the floodplain. “Development” means “any man-made change to improved or unimproved real estate.” This includes, but is not limited to:

- *Construction of new structures*
- *Modifications or improvements to existing structures*
- *Excavation*
- *Filling*
- *Paving*
- *Drilling*
- *Driving of piles*
- *Mining*
- *Dredging*
- *Land clearing*

- *Grading*
- *Permanent storage of materials and/or equipment*

FEMA typically defers to the County for determination of development in a special flood hazard zone. Compliance with Mono County floodplain ordinance will be necessary.

**Mono County** - The Mono County Community Development Department (CDD), consisting of the Planning, Building and Code Compliance divisions, provides a variety of development services for the unincorporated areas of the county. The CDD will require a Building Permit.

The Mono County Public Works Department will require a Grading Permit and a waiver for development of a non-residential structure within the 100-year floodplain of the Walker River.

**Great Basin Unified Air Pollution Control District (GBUAPCD).** Although no specific air quality plans are applicable to the project site, the GBUAPCD requires compliance with state and federal air quality standards. The project applicant must obtain permits for land disturbance with the GBUAPCD prior to operations. Compliance with permit conditions will assure that the Project does not degrade air quality.

## Chapter 3: Checklist

The evaluation of environmental impacts is based upon the completion of the checklist portion of the Environmental Checklist Form, and consists of the analysis of each impact issue area required under CEQA. The analysis of each checklist item identifies any significance criteria or thresholds used to evaluate each impact question, and any mitigation measure(s) identified to reduce the impact to a less-than-significant level.

This checklist identifies physical, biological, social and economic factors that might be affected by the Project. In some cases, background studies performed in connection with the Project indicate no impacts. A “No Impact” answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts. Federal Cross-Cutting requirements are addressed in Appendices D and E of this Initial Study.

### 3.1 Aesthetics

#### 3.1.A Checklist

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
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 building within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.1.B *Discussion*

A) No Impact

There are no designated scenic vistas in the project area vicinity, and therefore, the Project creates no impact. The project site is located within developed parcels currently used by the SEHOA. The site currently contains the Cold Well, the Hot Well a rock wall, and a community center/storage building that houses the existing water supply system. A new mechanical building is proposed in the immediate vicinity of this existing structure. The existing community center is currently and the proposed mechanical building will be screened from U.S. Highway 395 by existing vegetation. There is no development to the west of the highway that would be sensitive to the additional visual elements, and there are no existing scenic vistas that would be affected by the implementation of this project. Other project components will be underground and would have no impact on a scenic vista. Through the use of setbacks, conformance with Mono County design guidelines, landscaping, and building lighting, which is night-sky friendly with cut-off luminars directed downward, scenic impacts would be avoided.

B) Less Than Significant Impact

U.S. Highway 395 is a State of California Scenic Highway and this highway is adjacent to the project site. The US 395 corridor is defined as the area in the Antelope Valley, outside of communities and along both sides of US Highway 395 that is between the West Walker River to the east and the sloping terrain to the west of US Highway 395 (Mono County Planning Area Land Use Policies – Antelope Valley 2012).

The proposed mechanical building will be partially screened from view from the highway by existing vegetation and will comply with Mono County design review process and standards for development in the US Highway 395 corridor, as required by the building permit process. The remaining proposed improvements will be installed below ground surface. There would be less than significant impacts to scenic resources within a state scenic highway.

C) Less Than Significant Impact

Project construction will have temporary impacts on the scenic quality of the project area; however, the overall Project would not substantially degrade the existing visual character or quality of the site and its surroundings. The proposed mechanical building will blend in with the existing features and land uses, and landscaping and revegetation for site stabilization will provide for an aesthetic improvement over the existing condition. The Project would create less than significant impacts to the visual character.

D) Less than Significant Impact

Interference with nighttime skies from ground level light and glare or interference with vision due to reflective glare would constitute a significant impact. The Project may include the installation of lighting near the entrance door on the proposed mechanical building. The lighting is only necessary in case of an emergency during night time hours. The lighting could be considered an annoyance to neighboring properties; however, the residential portion of the SEHOA is located at a distance that would not be affected by the lighting system. Additionally, lighting will have timers to shut off after being activated as not to cause an undue nuisance. Furthermore, the lighting will use cut-off luminaires with light directed downward. The Project would not result in a substantial source of nighttime light or glare.

### 3.2 Agricultural Resources/ Farm Lands

#### 3.2.A Checklist

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<p><i>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.</i></p> <p><i>Would the project:</i></p>				
<p>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?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>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))?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>d) Result in the loss of forest land or conversion of forest land to non-forest use?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>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?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.2.B Discussion

##### A) No Impact

The project site is fully contained within the properties of the SEHOA. The project site does not contain 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. Because no lands designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance exist within the project site, the Project would result in no impact to these resources.

B) No Impact

The project site is not zoned for agricultural use and does not contain any Williamson Act contracts. Because no such zoning exists within the project site, the Project would result in no impact to these resources.

C) No Impact

The project site is not zoned for 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)). Because the project site contains no lands with these designations, the Project would result in no impact to these resources.

D) No Impact

The Project does not result in the loss of forest land or conversion of forest land to non-forest use. Because forest land does not exist within the project site, the Project would create no impact to this resource.

E) No Impact

Because designated Farmland does not exist within the project site, the Project would create no impact to this resource.

### 3.3 Air Quality

#### 3.3.A Checklist

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<p><i>Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.</i></p> <p><i>Would the project:</i></p>				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### 3.3.B Discussion

##### A) No Impact

The purpose of the Unified Great Basin Air Pollution Control District (GBUAPCD) is to enforce federal, state and local air quality regulations and to ensure that federal and state air quality standards are met. These standards are set to protect the health of sensitive individuals by restricting how much pollution is allowed in the air. To meet these standards GBUAPCD enforces delegated federal laws, enforces state

laws on stationary (as opposed to mobile) sources of pollution, and passes and enforces local regulations, as they become necessary. The GBUAPCD does not generally regulate mobile air pollution sources (cars and trucks), which is the responsibility of the California Air Resources Board (CARB).

Although no specific air quality plans are applicable to the project site, the GBUAPCD requires compliance with state and federal air quality standards. The Project Applicant must obtain permits for land disturbance with the GBUAPCD prior to operations. Compliance with permit conditions will assure that the Project does not degrade air quality. Because no applicable air quality plan exists that applies to the Antelope Valley area, the Project would result in no impact to such a plan. The Project will not contribute to the generation of significant levels of any air contaminant, and therefore, would not conflict with or obstruct the implementation of the plans of the GBUAPCD.

B) Less than Significant Impact

Project construction and operations will not cause violations to air quality standards or contribute substantially to an existing or projected air quality violation. Construction-related dust is the GBUAPCD's greatest concern and is addressed in GBUAPCD Rules 400 and 401. Rule 400 prohibits discharge into the atmosphere of any air contaminant for a period of more than three minutes in any one hour that is (1) dark or darker in shade as that designated as No. 1 on the Ringelmann Chart or (2) of such as to obscure an observer's view to a degree equal to or greater than does smoke. Rule 401 requires that reasonable precautions be taken to prevent visible particulate matter from being airborne, under normal wind conditions, beyond the property from which the emissions originate.

Based on emissions reports, the Project will not result in appreciable permanent reductions in air quality. Owens Lake and Mono Lake particulate sources within the GBUAPCD violate the federal PM10 standard, but these sources are over a hundred miles from the project site. Although the GBUAPCD reports no existing air quality violations for the project site or immediate vicinity, the Project includes air pollution control measures and practices to avoid and minimize air emissions that could contribute towards an existing or projected air quality violation. The Project proposes

dust control measures for disturbed areas. For ongoing fugitive dust control the Project Applicant or its contractor will water access roads and properly maintain spoil materials.

The new Project facilities will be powered by existing power lines in the project site that are operated by Liberty Utilities. The Project proposes back up power from an emergency propane generator.

The Project is not expected to increase traffic-related emissions. Air quality impacts would be limited to the emissions from equipment involved in the construction of the proposed improvements. These impacts would last the approximate four months of construction. The short duration of the proposed work combined with existing regulations regarding motor vehicle fuels and emissions will result in potential air quality impacts being well below any state or federal significance criteria.

Given the relatively small contributions towards PM10 emissions, the Project will not contribute substantially towards existing non-attainment of PM10 standards during construction, site stabilization, and operations. With implementation of Best Management Practices to ensure compliance with District Rule 400 and 401, the Project would have a less than significant impact on air quality and would not contribute substantially to an existing or projected air quality violation.

### C) Less than Significant Impact

The Project will not 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).

Although there are portions of Mono County within non-attainment areas for federal and state PM10 (particulate matter 10 microns or less in diameter) ambient air quality standards, the primary source for this pollution is the Owens dry lake, located more than 100 miles from the project site. The Project could generate some dust (including PM10 - a criteria pollutant) during grading activities for the installation of the mechanical building and hot well cooling loop. Areas of temporary disturbance

will be watered in accordance with District Rule 400 and 401, which will minimize PM10 emissions. As a result of proposed dust control measures, the Project would not increase PM10 pollutants over existing levels, and the Project would have a less than significant impact on PM10 levels.

D) Less than Significant Impact

A sensitive receptor is generally defined as a person in the population who is particularly more susceptible to health effects from exposure to an air contaminant than is the population at large. Sensitive receptors (and the facilities that house them) in proximity to localized CO sources, toxic air contaminants, or odors are of particular concern. The Project will result in temporary and relatively small amounts of air emissions during construction, as associated with equipment placement of fill and aggregate materials. These pollutant concentrations would not be emitted at substantial levels. Project operations will be performed within buildings and include an arsenic removal system that minimizes the creation of air borne pollutants and does not require a waste stream. The Project would not expose sensitive receptors to substantial pollutant concentrations.

E) Less than Significant Impact

Construction could generate odors from heavy diesel machinery. The generation of odors during the construction period would be temporary, would tend to be dispersed within a short distance from the active work area, and therefore, would result in less than significant impacts to the residents of the SEHOA and construction workers.

No objectionable odors will be generated from the Project following construction. Project operations would not create objectionable odors affecting a substantial number of people because arsenic removal operations would occur within the new mechanical building and by equipment designed to contain and/or neutralize objectionable odors.

### 3.4 Biological Resources

#### 3.4.A Checklist

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>

### 3.4.B Discussion

#### A) Less than Significant Impact

The Project will be located entirely within the SEHOA property. The project site has been used as a community open space area and to house the water supply system for over 30 years. As a result, the project site has been heavily disturbed and is essentially void of vegetation with the exception of some irrigated turf grass areas. Plant communities comprising the overall SEHOA property include Desert Riparian, Sagebrush and Urban. Wildlife habitats include Montane Cottonwood Riparian Forest and Great Basin Sagebrush Scrub. The project site is designated Sagebrush in the location of the proposed treatment system.

The project site is located within the USGS Coleville 7.5 minute topographic quadrangle. The California Department of Fish and Wildlife Natural Diversity Database (CNDDB 2015) search was conducted on March 19, 2015 for records of special-status species occurrences within the Coleville 7.5 minute Quad map and surrounding 7.5 minute Quads (e.g., Topaz Lake, Heenan Lake, Wolf Creek, Disaster Peak, Lont Cannon Peak, Chris Flat, Risue Canyon, Long Dry Canyon). Additionally, a species list was obtained from the US Fish and Wildlife Service (USFWS) office in Inyo County on March 19, 2015, and a report was run for the Coleville 7.5 minute Quad map and the nine associated Quad maps listed above to focus the data from USFWS. The California Native Plant Society (CNPS) database was also searched for sensitive and rare plants in riparian forest habitat in the nine 7.5 minute quad map surrounding and including Coleville, California. The database query results and a copy of the USFWS letter are available in Appendix D, Biological Assessment Memorandum. Table 3-A summarized the database query results.

Table 3-A: Regional Species and Habitats of Concern				
Common Name/ Scientific Name	Status	General Habitat Description (Zeiner et al 1990 and Calflora 2015)	Habitat Present/ Absent/ Unknown	Rationale
<b>Amphibians</b>				
<i>Rana muscosa</i> Sierra Nevada yellow-legged frog	FE	Streams, lakes, and ponds in montane riparian, lodgepole pine, subalpine conifer and wet meadow habitats. Always encountered within a few feet of water. Tadpoles may require 2 - 4 years to complete their aquatic development.	A	No suitable habitat within the project area. The ditch flowing along the eastern border of the project area does not contain suitable habitat due to periodic flows and lack of vegetation structure to support SNYLF. The rocky embankment in the north east corner of the project area along the edge of the Walker River drainage does not contain suitable habitat.
<b>Birds</b>				
<i>Haliaeetus leucocephalus</i> Bald eagle	D	Breeds and roosts in remote coniferous forests in close proximity to a river, stream, lake, reservoir, marsh, or other wetland area.	P	Suitable roosting habitat is located adjacent to the project area in cottonwood trees along the Walker River. Closest known occurrence is a nesting pair presumed to be extant at Topaz Lake approximately 10 miles to the north.
<b>Mammals</b>				
<i>Martes pennanti</i> Pacific fisher	FC	Extensive forested areas with continuous canopy in higher elevations. Avoids entering open areas that have no overstory or shrub cover.	A	No suitable habitat within the project area due to the absence of forested area and limited overstory cover.
<b>Plants and Fungi</b>				
<i>Boechnera cobrensis</i> Masonic rockcress	2B.3	A perennial herb that is native to California that blooms in June and July in sandy habitat especially sagebrush.	P	Suitable habitat present onsite.
<i>Carex occidentalis</i> western sedge	2B.3	Grows in woodland and grassland habitats and blooms between June and August.	A	No suitable habitat within the project area due to lack of woodland and grassland habitats.
<i>Carex petasata</i> Liddon's sedge	2B.3	Occurs in wet meadows and wetlands in yellowpine forest and riparian areas. Blooms May through July.	P	Suitable habitat present along banks of irrigation ditch within project area.

<i>Carex vallicola</i> western valley sedge	2B.3	Occurs in both xeric and mesic habitats in both forest and grassland areas.	A	Suitable habitat not present onsite as no grassland areas occur within the project area.
<i>Claytonia umbellata</i> Great Basin claytonia	2B.3	Occurs in subalpine coniferous forest on talus slopes. Blooms May through August.	A	Suitable habitat not present onsite as no subalpine coniferous forest areas occur within the project area.
<i>Glyceria grandis</i> American manna grass	2B.3	Occurs in riparian habitats, streambanks, lake-margins, meadows, bogs/fens, edges.	P	Suitable habitat present along banks of irrigation ditch within project area.
<i>Hymenopappus filifolius</i> var. <i>nanus</i> little cutleaf	2B.3	Occurs in limestone soil, pinyon/juniper woodland, and subalpine forest. Blooms May–Aug.	A	Suitable habitat not present onsite as no pinyon/juniper woodland occurs within the project area.
<i>Kobresia myosuroides</i> seep kobresia	2B.2	Occurs in Alpine Fellfields, Subalpine Forest, wetland-riparian; often associated with wetlands.	P	Suitable habitat present along banks of irrigation ditch within project area.
<i>Polygala subspinosa</i> spiny milkwort	2B.2	Occurs in desert scrub and volcanic mesas. Blooms May through August.	A	No suitable habitat present onsite. Known occurrences to the south east in the Sweetwater mountains.
<i>Viola purpurea</i> ssp. <i>Aurea</i> golden violet	2B.2	Occurs in Sagebrush Scrub, Pinyon-Juniper Woodland. Blooms from May through July.	P	Suitable habitat present onsite in the form of Sagebrush Scrub habitat.
C- Candidate, T-Threatened, E – Endangered, SSC- Species of Special Concern, FP - Fully Protected, CNPS Rank 1B, 2.1, 2.2, 2.3, 3, 4.2 SES 2015 Source: Appendix D SEHOA Water System Improvement Project Biological Assessment Memorandum				

No special-status plants were encountered on the project site during the May 2014 survey. However, based on the information contained in Table 3-A and results of the reconnaissance survey conducted on May 12, 2014, the project area contains suitable roosting habitat for bald eagle. The Project would not have a substantial adverse effect, through habitat modifications, on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS because the Project would not substantially modify habitat. The Project would avoid direct effects to raptors and migratory birds through compliance with the requirements of the Migratory Bird Treaty Act (MBTA) to conduct pre-construction surveys and protect active raptor and migratory bird nest sites.

B) No Impact

According to a search of the CNDDDB, no sensitive natural communities have been documented within the project area. The irrigation ditch that runs through the SEHOA property does support woody riparian habitat (*Salix sp.*) through transmissive losses, but this ditch would not be directly or indirectly affected by the Project because it is outside the area of disturbance. Of the sensitive natural communities listed in the Mono County General Plan, none are present within or adjacent to the project site. The Project will not 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 CDFW or USFWS because although riparian habitat is mapped within the SEHOA property along the West Walker River, no riparian habitat or other sensitive natural communities are within proposed area of disturbance.

C) No Impact

The Project will be located entirely within the SEHOA property and although riparian habitat is mapped within the SEHOA property along the West Walker River, no riparian habitat is within proposed area of disturbance. The Project would not be located in federally-protected wetlands or waters of the United States, nor would the Project require direct removal, filling, hydrological interruption to federally-protected wetlands or jurisdictional waters of the United States. The Project would have no impacts on wetlands or waters of the United States as defined by Section 404 of the Clean Water Act.

D) Less than Significant Impact

The project area contains suitable roosting habitat for bald eagle and all eagle nests are protected under The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c). Less than significant impacts to biological resources will occur if construction is completed outside the nesting period and if specific biological resources are avoided, as described in Subsection 1.2.J, Best Management Practices Plan/Project Design Measures. If project construction occurs during the nesting season between the months of April and August, the SEHOA will protect existing active bird nests

and/or nursery sites potentially impacted by construction activities in compliance with the Migratory Bird Treaty Act (MBTA). The SEHOA will develop an Active Raptor and Migratory Bird Protection Program to meet the requirements of the MBTA. The program will include surveys, consultation with CDFW and the USFWS (if necessary), and protective actions. Pre-construction surveys, conducted during the nesting/breeding season and immediately prior to initial Project construction (e.g., excavation, grading and vegetation removal), will be conducted to identify active raptor or migratory bird nest sites within the project area that may not have occurred previously or were not identified by prior biological surveys. During initial construction activities, a qualified biological monitor will be present to determine if raptors or migratory birds are occupying trees within the project area and immediate vicinity. The biological monitor will have the authority to stop construction near occupied trees or nursery sites if construction activities appear to be negatively impacting nursery sites, nesting raptors, migratory birds or their young. If construction must be stopped, the biological monitor will consult with CDFW and also USFWS (if applicable) staff within 24 hours to determine appropriate actions to restart construction while reducing impacts to identified nursery sites, raptor nests and/or migratory bird nests.

Construction noise will be similar to traffic and maintenance noise in the area and is not expected to impact wildlife or avian species. Operational noise will be comparable to existing conditions of the project site, as will the number of maintenance personnel trips to the project site. The Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites.

E) No Impact

No trees are proposed to be removed as a result of the project. The Mono County General Plan identifies Goals and Policies for protection of biological resources. The Project will comply with Mono County ordinances and would not conflict with local policies or ordinances protecting biological resources.

F) No Impact

The Project does not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan because no such plans exist for the project site.

### 3.5 Cultural Resources

#### 3.5.A Checklist

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

#### 3.5.B Discussion

##### A) No Impact

The project site is located entirely within the SEHOA property in an area that has been disturbed by past grading and fills activities. No known historical resource features exist within the project site. Additionally, there are no known or visible historic or prehistoric resources on the project site that are potentially eligible for the National Register of Historic Places and no unevaluated cultural resources. If historic resources are discovered during construction, construction activity will be immediately stopped, a qualified appropriate specialist will be contacted, and

measures that are detailed in Subsection 1.2.J, Best Management Practices Plan/Project Design Measures, of the project description will be followed.

Because no historical resources as defined in PRC section 15064.5 would be disturbed within the project site, the Project would not cause substantial adverse change in the significance of a historical resource.

B) No Impact

No archaeological resources have been identified within the project site, and excavation will occur in previously disturbed areas. However, a remote potential to unearth undiscovered archeological resources does exist. Requirements will be included in construction contracts to ensure that there would be no impacts to previously undiscovered resources. The Project would not cause a substantial adverse change in the significance of an archaeological resource because avoidance of such resources will occur during Project construction and long-term operations.

C) No Impact

Unique paleontological or unique geologic features are not expected in the project site. The Antelope Valley is underlain by a thick sequence of unconsolidated to moderately consolidated sedimentary materials. These sediments include alluvial fans, glacial and talus deposits, and fluvial environments and these environments do not usually contain intact fossils. The Project requires excavation and disturbance in an area that has already been disturbed and that is not a high or moderate resource potential geologic deposit, formation or rock unit. The Project would result in no impact to paleontological resources.

D) No Impact

No dedicated cemeteries or known burial sites exist within the project site, and during prior development of the project site no human remains were encountered. If human remains are unearthed, the Mono County Coroner will be contacted and disposition of Native American remains would comply with CEQA Guidelines Section 15064.5(e) and 43 CFR 10, Native American Graves Protection and Repatriation Regulations.

## 3.6 Geology and Soils

### 3.6.A Checklist

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<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 (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

### 3.6.B Discussion

#### A-i) Less than Significant Impact

The project site is located in seismic Zone 4 and within an Earthquake Fault Zone (EFZ) defined by Alquist-Priolo Earthquake Fault Zone Act (1993), as shown on the map for Desert Creek Peak SW ¼ Quadrangle (Hart and Byant 2007). The EFZ is associated with the Holocene-age, active Antelope Valley Fault that is mapped on the west side of US Highway 395 about 500 feet of the project site. This fault is estimated as having the potential to generate maximum earthquake magnitude of 6.7 Mm (Black Eagle Consulting 2015). Per geotechnical investigations conducted on December 18, 2014, the proposed Project components do not cross the designated fault hazard zone.

Fault trenching conducted at the project site found no evidence of faulting or ground rupture in the area of the proposed mechanical building or cooling loop. The likelihood of ground rupture is low and the exposure of people or structures to potential substantial adverse effects from rupture of a known earthquake fault will be further reduced through compliance with Mono County building codes and implementation of geotechnical recommendations outlined in Appendix D.

#### A-ii) Less than Significant Impact

The project site soils are mapped by the California Geological Society as Quaternary Alluvium; this geologic unit is described as streams and river alluvium, glacial outwash, and recent fan deposits. Although the likelihood of ground rupture is low, the potential for strong seismic ground shaking is high because of proximity to the active Antelope Valley Fault. Building and civil design plans will be prepared in accordance with the geotechnical engineer's recommendations outlined in Appendix D, which would reduce potential impacts from strong ground shaking to a level of less than significant.

#### A-iii) Less than Significant Impact

To assess the potential for seismic-related ground failure, including liquefaction, for the project site, information was obtained from the California Geologic Survey

website's Probabilistic Seismic Hazard Mapping Ground Motion page for California, and mapping conducted by the USGS in 2013 was also consulted. Ground motion for the project site, expressed as a fraction of the acceleration of gravity (g) range between peak ground acceleration (PGA), is 0.64g for the project site (Note: 2 percent probability of exceedance in 50 years). Due to the dense nature of site soils, presence of oversized particles, and a relatively deep groundwater table, the potential for soil liquefaction at the project site is negligible (Black Eagle Consulting 2015).

A-iv) No Impact

Because the project site contains no landforms that could contribute to landslide potential, the Project has no effect towards exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.

B) Less than Significant Impact

The project site is nearly level and the potential for erosion is low. The Project includes committed practices for erosion and sediment control during construction and during long-term operations, as presented in Appendix B on Plan Sheet C13 and detailed in Section 1.2, Project Description. BMPs will be used to limit erosion and reduce sediment in precipitation runoff from disturbed areas during construction. The project site will be revegetated following construction. The Project reduces impacts from substantial soil erosion or the loss of topsoil to a level of less than significant through implementation of these committed practices.

C) Less than Significant Impact

This potential is dependent upon the magnitude of the seismic event, the location of the earthquake epicenter, basin edge effects, and other factors that lead to the amplification of ground motion. There is no specific policy which requires structures or pipes to be designed to resist liquefaction. According to soils tests and fault trenching performed (Black Eagle Consulting 2015), the underlying geology suggests

a negligible potential for liquefaction. The Project will not cause geologic instability and topography is nearly flat.

No soil conditions that would preclude Project construction or operations were identified. Adherence to standard building techniques and practices ensures that Project facilities withstand probabilistic seismic hazards and localized geologic and soils conditions. Compliance with relevant local, State, and federal rules, regulations, policies, and procedures works to ensure less than significant impacts resulting from soil instability. On- or off-site landslide, lateral spreading, subsidence or collapse will not occur as a result of the Project and potential impacts would be less than significant.

D) No Impact

Soils tests conducted in the project site determined that site soils are not expansive. The proposed Project will not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) and would therefore not create substantial risks to life or property.

E) No Impact

The Project will not require the use of new septic tanks or alternative on-site waste water disposal systems. No impacts due to the use of septic tanks or alternative wastewater disposal systems would occur as a result of the Project.

### 3.7 Greenhouse Gases and Climate Change

#### 3.7.A Checklist

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.7.B Discussion

##### A) Less than Significant Impact

The Project will not directly contribute to greenhouse gas (GHG) emissions because the Project includes components to control fugitive dust emissions resulting from construction. Indirectly during construction of the Project, GHG emissions will occur on a temporary and intermittent basis from construction equipment. The sources of GHG emissions for this Project will include the combustion of diesel fuel used in construction equipment and the emissions associated with daily commute of construction workers. Table 3-B compares the GHG emissions for several types of projects. This Project would be even less in terms of order of magnitude than a project involving “installation of 3 miles of telecommunications lines.”

Indirectly during operations, GHG emissions will occur from maintenance vehicles accessing the project site. Limited emissions are anticipated from vehicles of workers commuting to and from the project site for operations and maintenance. In comparison with CARB estimates for annual CO2 emissions, the worst-case scenario of one daily trip associated with long-term operations and the contribution of

the Project towards statewide GHG emissions would be nominal. Emissions from this Project would have virtually no impact on the state’s goal to reduce emissions by 169 million metric tons by the year 2020. The proposed Project’s cumulative impacts to global climate change due to the incremental contribution of GHGs would be less than significant.

**Table 3-B: Comparison of GHG Emissions for Various Types of Projects**

Project Description	CO <sub>2</sub> -Equivalent	
	Construction Emissions (tons)	Operating Emissions (tons per year)
Typical household emissions <sup>1</sup>	NA	27.7
Installation of 3 miles of telecommunication lines <sup>2</sup>	494	0.0
1 lane-mile of road construction <sup>3</sup>	2,600	NA
30 MW geothermal power plant	NA	24,700
Univ. NH, Durham Campus, 2003	NA	71,100
Sunrise Powerlink Project <sup>4</sup>	147,000	NA
300 MW coal-fired power plant	NA	2,950,000

<sup>1</sup> Based on family of 4, two cars, natural gas heat, 550 mi/week total driving, 24 mpg.  
<sup>2</sup> Based on 8 weeks of construction, 5 days a week for 10 hours a day  
<sup>3</sup> Estimated 1,400 - 2,300 tons of CO<sub>2</sub> per lane-mile for construction only. Does not include increased traffic or road maintenance. CO<sub>2</sub>-equivalent estimate assumes same ratio of CH<sub>4</sub> and N<sub>2</sub>O to CO<sub>2</sub> as the current project.  
<sup>4</sup> Assumes same ratio of CH<sub>4</sub> and N<sub>2</sub>O to CO<sub>2</sub> as the current Project to estimate total CO<sub>2</sub>-equivalent.

Sources: EPA 2008, Williams-Derry 2007, Bloomfield et al. 2003, PSC of Wisconsin 2008, UNH 2004, CPUC and BLM 2008, CARB 2008

**B) No Impact**

The Project will not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of because such plans specific to the project site and vicinity do not yet exist. Over the long-term, the Project would support State of California plans, policies, and regulations to reduce greenhouse gas emissions and adapt Project facilities and processes to evolving legislation and best science.

### 3.8 Hazards and Hazardous Materials

#### 3.8.A Checklist

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
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 likely 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 within one-quarter mile of a facility that might reasonably be anticipated to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Be located on a site of a current or former hazardous waste disposal site or solid waste disposal site unless wastes have been removed from the former disposal site; or 2) that could release a hazardous substance as identified by the State Department of Health Services in a current list adopted pursuant to Section 25356 for removal or remedial action pursuant to Chapter 6.8 of Division 20 of the Health and Safety Code?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) 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 site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
g) 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 site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) 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"/>
i) 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### 3.8.B Discussion

#### A) Less than Significant Impact

Hazardous materials will be transported, stored, and used in accordance with federal, state, and local regulations (e.g., Clean Air Act, Clean Water Act, Comprehensive Environmental Response, Compensation and Liability Act and the Toxic Substances Control Act). At the local level, fire departments screen inventories of substances and inspect sites; the Mono County Health Department is responsible for reviewing hazardous materials plans; and the GBUAPCD evaluates projects for possible toxic emissions and also issues permits as necessary.

The Project's main hazard concerns are two-fold: proper transport, testing and disposal of adsorption cartridges generated during the arsenic removal process and the potential for an accidental spill of the chemicals used in the arsenic oxidation process. These potential health risks are associated with the presence of sodium hypochlorite (NaOCl) or chlorine bleach, and calcium chloride (CaCl<sub>2</sub>), the ionic compound of calcium and chlorine at the arsenic removal facility. These compounds are not listed Resource Conservation and Recovery Act (RCRA) hazardous wastes. However, sodium hypochlorite and calcium chloride can both be hazardous in the

case of skin and eye contact, ingestion and inhalation, and therefore, Best Management Practices will be used in handling and storing these materials.

Transport. When transported in vehicles, activities associated with hazardous materials transportation (packaging, identifying, loading, and warning the public of the hazard) are regulated by the California Highway Patrol and the U. S. Department of Transportation (USDOT). Most of California's hazardous material safety regulations are found in Title 13 of the California Code of Regulations, Division 2, Chapter 6. The federal hazardous material safety regulations are found in 49 CFR, parts 171 through 180. A substance or material, as defined in Title 49 of the Code of Federal Regulations (49 CFR), Section 171.8, that is capable of causing an unreasonable risk to human health or safety or the environment when transported by vehicle, used incorrectly, or not properly stored or contained, is a hazardous material. Hazardous materials can be a liquid, a solid, or a gas. Examples of hazardous materials are explosives, flammables, corrosives, radioactive materials, and poisons. Transportation of such materials is highly regulated to ensure the safety of the motoring public.

Chemicals required for the arsenic removal system will be transported to the project site. Trucks for hire must meet the general requirements regarding the transportation of hazardous materials as governed by sections 31301-34510 of the Vehicle Code. The Project will not involve the transportation of explosives, inhalation hazards or radioactive materials.

Use. Employees will be trained in the proper use and disposal of hazardous materials, including Hypochlorite (NaOCl) and Calcium Chloride (CaCl), spent arsenic removal cartridges, accumulations of mercury fluorescent lights and antifreeze. Secondary containment (lined with plastic) is proposed to contain leaks or spills. Copies of the Material Safety Data Sheets for each chemical will be maintained onsite for inspection. The arsenic removal system will be located in a proposed new 24 foot by 30 foot building of cinder block construction with a slab floor with a floor drain, metal roof, roll up door, emergency power from the adjacent emergency propane generator, and areas for chemical storage as shown on Figure 1-D.

Disposal. The adsorption process for arsenic removal does not require a waste stream. Preliminary calculations, based upon the expected amount of arsenic to be removed by the active cartridge as well as the binding of the arsenic to the media and the expected pH, indicate that cartridges will not be considered a hazardous waste per California and Federal guidelines and may be disposed of as a non-regulated waste (ordinary waste). The method of disposal and the classification of the cartridges will be determined based on laboratory analysis. Based on the results, any hazardous materials will be disposed of off-site at an appropriate disposal facility in accordance with applicable regulations. Compliance with codified regulations described above avoids and minimizes potential hazards to the public or the environment through the routine transport, use, or disposal of hazardous materials.

The adsorption process does not typically require a waste stream. Preliminary calculations based upon the expected amount of arsenic to be added to the cartridge as well as the binding of the arsenic to the media and the expected pH indicate that they will not be considered a hazardous waste per California and Federal guidelines and may be disposed of as a non-regulated waste (ordinary waste). However, to be in strict compliance with regulations the media will be tested to verify that it is not considered hazardous. U.S. Ecology operates a treatment and landfill facility at Beatty Nevada located approximately 230 miles southeast of Bridgeport, which can accept the waste cartridges. Additionally, the cartridges can be returned to the manufacturer, a certified handler, for disposal.

In summary, the use, storage, and handling of minor amounts of hazardous materials would be anticipated with refueling or equipment cleaning activities during construction and the use of building materials, epoxies, and other materials to improve infrastructure. The amount of hazardous materials necessary for the Project would not be substantial enough to create a significant hazard from routine transport, use or disposal of hazardous materials.

#### B) Less than Significant Impact

Project design, installation of BMPs and compliance with federal and state regulations and permit programs will avoid and minimize hazards to the public or the environment involving the release of hazardous materials into the environment.

Construction equipment that utilizes gasoline, diesel, and other hazardous substances in small quantities will be associated with the Project. There is a potential for a significant impact to humans from exposure to construction materials containing hazardous materials or from potential hazardous material spills. The risk of exposure of people to construction-associated hazardous materials would be reduced to less than significant levels through the implementation of BMPs for safe handling and use. The Project contractor will be required to prepare a Health and Safety Plan prior to construction. The plan will identify methods and techniques to minimize the exposure of onsite workers and the public to potentially hazardous materials during construction and will require implementation of appropriate BMPs and approved containment and spill-control practices (e.g., spill control plan) for construction and long term operations. The plan will remain onsite along with spill clean-up kits at all times during construction and operations.

The Project operations are not anticipated to result in the creation of health hazards following compliance with health and safety regulations and the potential for release of hazardous materials during construction and operations would be reduced a level of less than significant.

C) No Impact

The Project would not be located within one-quarter mile of an existing school. The City of Coleville and Mono County have no schools proposed in the vicinity of the project site.

D) No Impact

The project site would not be located within one-quarter mile of a facility that might reasonably be anticipated to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste.

E) No Impact

The Project would not be located on a known hazardous waste and substance site. The project site is not identified on the Cortese List, which is updated and submitted

at least annually to the Secretary of Environmental Protection pursuant to Section 65962.5 (<http://www.envirostor.dtsc.ca.gov/public/>).

F) No Impact

The Project would not be located within an airport land use plan and is not within two miles of a public airport or public use airport. The Project therefore has no impact to human safety hazards in designated airport influence areas.

G) No Impact

The Project would not be located in the vicinity of a private airstrip, and therefore, creates no impact to human safety hazards in designated airstrip influence areas.

H) Less than Significant Impact

The primary evacuation route is US Highway 395. Project related activities will not interfere with any emergency response plan or emergency evacuation plan. Should project construction require US Highway 395 to be temporarily blocked for equipment access, traffic control will be provided to allow for direction of traffic and prioritization of emergency vehicles. There are no hospitals, fire, police, or sheriff stations located within or in the vicinity of the project site. The Project would comply with applicable Mono County codes for emergency vehicle access.

I) Less than Significant Impact

The Project will be constructed within an existing, developed area of the SEHOA property that has little vegetation. The project site is predominantly compacted soils with some landscaped grass cover. The risk of starting a wildfire in the project site is minimal. The Project would not expose people or structures to a significant risk involving wildfires because the project site does not contain sufficient vegetation to spread catastrophic wildfire, is not located adjacent to urbanized areas, and does not directly involve residences.

### 3.9 Hydrology and Water Quality

#### 3.9.A Checklist

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level 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 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capability of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.9.B Discussion

A) Less than Significant Impact

The Project will bring an existing water supply system into compliance with California Department of Public Health drinking water standards for arsenic. The Project will not be constructed through any waterways or wetlands and will not violate any surface water quality standards or waste discharge requirements. The Project includes erosion and sediment control BMPs that will be installed and maintained through the construction period. Following construction, disturbed areas will be revegetated to reduce the potential for erosion from wind and surface water runoff.

Operation of the water supply and treatment systems will produce no discharge. The Project could generate hazardous spills, which if severe and because of proximity could impact the West Walker River. The Project contractor will be required to prepare a Health and Safety Plan prior to Project construction. The plan will identify methods and techniques to minimize the potential for spill and will require implementation of appropriate BMPs, approved containment and spill-control practices (e.g., spill control plan) during construction and operations. The plan will remain onsite along with spill clean-up kits at all times during construction and operations.

State Water Board Resolution No. 68-16 "Statement of Policy With Respect to Maintaining High Quality of Waters In California," known as the Nondegradation Policy, requires whenever the existing quality of water is better than the quality of water established in the Basin Plan, such existing quality will be maintained unless appropriate findings are made under Resolution No. 68-16. The Project as proposed

will not purposefully discharge waste that would degrade water quality. The potential for impacting water quality would be reduced to a level of less than significant through the proposed design of the Project.

B) Less than Significant Impact

Improvements made to the existing water supply system and the installation of the adsorption system for the removal of arsenic will not result in groundwater extractions that substantially exceed existing conditions. Presently, there are no water meters on the SEHOA water system and no records of measured rates of water consumption. The Preliminary Engineering Report, attached in appendix A, estimated existing water consumption at each of the existing wells through analysis of two years of measured kilowatt-hour (kWh) electrical consumption of the two wells. The Project has been designed to meet the existing water demand of SEHOA residents with consideration of seasonal irrigation and other non-domestic uses for determination of peak demand. The improvements are designed to meet the existing peak day demand of 27 gallons per minute (GPM).

The maximum production rate of the Cold Well is 50 GPM (CDWR Well Log No. 162959) and the maximum production rate of the Hot Well is 75 GPM (CDWR Log No. 37969). The Project will avoid substantial impacts to groundwater supplies and recharge through installation and monitoring of new water meters and installation of two 5,000 gallon storage tanks. Ultimately, the Project limits maximum production from either well or both wells in parallel to 40 GPM or less as a function of the flow control valves in the arsenic removal system. That is, maximum production rates under this Project will be less than the historic maximum production rates. No increase in the volume of pumping is expected, as based on the SEHOA being nearly built out (94%) combined with the monitoring of new water meters. Drawdown depths are not expected to interfere with the local groundwater table level, which based on water levels of the West Walker River is in excess of seven feet below ground surface.

Additionally, the Project will not create impervious surfaces that would substantially impact groundwater recharge, and there are no pre-existing wells nearby that would

have production rates affected. Potential impacts to groundwater supplies and recharge would be avoided and reduced to a level of less than significant.

C) Less than Significant Impact

The project site contains no streams or rivers. A drainage ditch is located to the west of the active project site but will not be affected by construction (See Appendix B Plan Sheet C13 – BMP Plan). The project site drains via sheet flow to the east and towards the West Walker River. The Project does not alter existing topography or create additional impervious surfaces beyond hardscape associated with the mechanical building. This additional impervious surface would not be substantial enough to alter existing drainage patterns of the project site. On or off-site erosion, siltation, or flooding would not result from Project construction or long term operations.

D) Less than Significant Impact

See checklist question C above. The Project would not increase impervious surfaces to the extent of substantially increasing the rate or amount of surface runoff in a manner that would result in flooding on or off-site.

E) No Impact

The project site does not have direct connections to existing stormwater drainage systems and contains no municipal storm water systems. Stormwater runoff is captured and infiltrated onsite. The Project would create no change to existing conditions.

F) Less than Significant Impact

See response to checklist question A above. The Project will not degrade water quality. The Project installs a closed treatment system that does not produce wastewater effluent. The Project will not cross surface waters or serve as a source of potential pollutants to local waterways or impact groundwater quality.

G) No Impact

Although much of the SEHOA is located within a FEMA 500-year floodplain, which is subject to a 0.2% chance of flooding during any given year, and portions of the SEHOA, particularly on the east side, are located within a 100-year Zone AE floodplain, the Project involves no placement of housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

#### H) Less than Significant Impact

Much of the SEHOA is located within a FEMA 500-year floodplain, which is subject to a 0.2% chance of flooding during any given year. Portions of the SEHOA, particularly on the east side are located within a 100-year Zone AE floodplain, which is shown as a breakout from the West Walker River. This breakout generally flows to the north through the SEHOA streets and impacts up to eight parcels, one of which is vacant and buildable and another which is vacant and not buildable due to its location in the floodplain and restrictions placed by the owner, Mono County. The floodplain boundaries are generally depicted in Figure 2-A.

The proposed mechanical building that will house the adsorption system for arsenic removal has been sited to be located outside of the 100-year floodway. However, because of the location of the existing water supply system, the proposed structure must be located within the 100-year floodplain, as mapped by FEMA. The relocated Cold Well, because of the location of the existing water supply system, must be redrilled within the 100-year floodplain.

The 100-year base flood elevation is 5,264 feet above mean sea level (FEMA 2011). The proposed mechanical building will be elevated one to two feet above this base flood elevation to protect the new water treatment system in the event of flooding. Because of the size of the building (24 feet by 30 feet), the proposed structure would not significantly impede or redirect flood flows. The top of the Cold Well casing will be constructed at an elevation above the 100-year base flood elevation. Impacts to flood flows would be less than significant through compliance with Mono County Building Permit conditions and standards of construction for development in areas of special flood hazard (Chapter 21, Mono County General Plan, Land Use Element).

I) Less than Significant Impact

Although the new mechanical building must be constructed within the 100-year floodplain, the Project would not expose people or structures to a new significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam. The Project would also not influence or cause any flooding events.

J) No Impacts

The Project would not create risk of inundation by seiche, tsunami, or mudflow because the project site is not located in an area where these threats and hazards exist.

## 3.10 Land Use and Planning

### 3.10.A Checklist

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
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 type="checkbox"/>	<input checked="" 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"/>

### 3.10.B Discussion

#### A) No Impact

The Project would not physically divide an established community. The Project would not affect the land use or character of the existing SEHOA or surrounding areas.

#### B) No Impact

Projects consistent with zoning and compatible with surrounding uses result in no impacts to land use. The Project would be located in an area designated and approved as a Manufactured Housing Subdivision. This land use designation (MHS) includes manufactured housing and required infrastructure as permitted uses. The project site is surrounded by other residential land uses and properties designated Residential (RR-5), Resource Management (RM) and Agriculture (AG-10).

The new mechanical building would be permitted in the manufactured housing subdivision as an accessory use and structure through conformance to setback and

maximum lot coverage requirements. Not more than 75 percent of the area of a manufactured housing lot may be covered by the manufactured housing unit, accessory structures, paved drives and parking. The mechanical building would be located with the common area of the SEHOA and would not cause land coverage limits to be exceeded. The proposed improvements are consistent with existing and proposed land use in the area. No incompatibilities between the Project and the Mono County General Plan have been identified.

C) No Impact

Mono County's General Plan for the Antelope Valley does not identify habitat, natural community, or other conservation plans that would apply to the project site, and therefore, no conflicts would occur.

### 3.11 Mineral Resources

#### 3.11.A Checklist

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<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"/>

#### 3.11.B Discussion

A-B) No Impact

The project site would not be located in Mineral Resource Zones 1 through 4 classification areas. The project site does not contain an economically feasible

extraction operation and no mineral resources are known to exist on the site. The Project would not have a negative impact on mineral resources. The Project will require aggregate to manufacture base for the main elements of the project, but the demand would not have an impact on the resource. The SEHOA may need to obtain fill material for some construction activities. Any borrow or disposal sites must comply with the Surface and Mining Reclamation Act of 1975. Fill material would be obtained from authorized sources. In summary, no impacts to mineral resources would occur.

### 3.12 Noise

#### 3.12.A Checklist

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<i>Would the Project result in:</i>				
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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne 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 type="checkbox"/>	<input checked="" 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"/>
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the project site 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 site to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.12.B Discussion

##### A) Less than Significant Impact

Noise sources can be grouped into two categories: mobile and stationary. Mobile sources are noise producers that move within Mono County. In Mono County, these include vehicle traffic on highways and roads, railroad operations, aircraft noise from military operations, and noise from general and commercial aviation. Primary

stationary sources in the County include mining, industrial, commercial and utility land uses (Mono County General Plan Noise Element 2010). Chapter 10.16 of the Mono County Code establishes noise standards and regulates noise according to those standards.

Noise generation from the Project will be related to construction activities. Construction noise will be variable, temporary, and short-term in nature (approximately four months). Heavy trucks and machinery for concrete pouring, waste disposal, and other construction activities will generate noise. Equipment used for soil and concrete compaction will likely be the loudest machinery used. This noise generation is similar to trash removal, lawn mowing, and other maintenance noise.

The maximum outdoor noise level acceptable in multiple dwelling residential neighborhoods with public space is 55 decibels (dBA). The maximum noise levels noise levels related to construction for a single event is 85 dBA (Mono County Code Title 10.16.090.6b). The Project contractor will be limited to construction between the hours of 7 am and 7 pm. A primary contact for the contractor will be designated to respond to valid complaints about construction noise. The contact will determine the cause of the noise complaint (e.g., starting too early, bad mufflers, etc.) and institute reasonable measures warranted to correct the problem immediately and in no case longer than two hours. Additionally, contractors will be required to use properly maintained equipment that is equipped with suitable exhaust and air intake silencers, as appropriate. The Project would comply with noise standards established in the Mono County Code and create less than significant generation of noise levels.

#### B) Less than Significant Impact

Construction equipment will create temporary and periodic vibration effects in the project site, but would not expose persons to excessive groundborne vibration or noise levels. Vibratory rollers are routinely used to compact soils, bases, and some types of pavement. Vibration from the rollers and other ground disturbing equipment will be perceptible at the immediate project site, but the vibration from this equipment would not generate vibration that could damage houses or businesses. The Project does not include full time generator power for operations. The backup propane

generator would be utilized only during power outages. The Project would generate less than significant impacts from groundborne vibration or groundborne noise levels.

C) No Impact

The proposed arsenic removal system will be housed within the new mechanical building and following construction these improvements would not generate a source of permanent noise in the project area.

D) Less than Significant Impact

Project construction noise will be intermittent, and the level will vary depending on the type, location, and length of the activity. Project construction will generate temporary and periodic noise, but ambient noise would not increase substantially as measured at the SEHOA property boundary. Additionally, residential uses or other sensitive receptors are not located within 500 feet of the project site. Valid noise complaints by SEHOA residents living in the northern portion of the SEHOA property will be addressed by the construction contractor. The arsenic removal process will occur within the new mechanical building and as a result, will not increase ambient noise levels. The Project would not create substantial permanent increase in ambient noise levels in the project area vicinity above levels existing without the Project.

E) No Impact

The Project would not be located within an airport land use plan or within two miles of a public airport or public use airport, and therefore, would create no exposure of people working in the project site to excessive noise levels from air traffic.

F) No Impact

The Project would not be located within the vicinity of a private airstrip, and therefore, would create no exposure of people working in the project site to excessive noise levels from air traffic.

### 3.13 Population and Housing

#### 3.13.A Checklist

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

#### 3.13.B Discussion

##### A) No Impact

The Project will not directly or indirectly induce substantial growth. The Project will not require or encourage an increase in population or the construction of housing. The Project will improve the quality of the potable water supply, making the area a more desirable place to live, but no expanded infrastructure that would encourage growth is proposed.

##### B) No Impact

The Project displaces no existing housing and therefore would not necessitate the construction of replacement housing.

##### C) No Impact

The Project displaces no people and therefore would not necessitate the construction of replacement housing.

### 3.14 Public Services

#### 3.14.A Checklist

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<i>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:</i>				
a) Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.14.B Discussion

##### A-E) No Impact

The Project will not require additional public services and therefore would create no impact to acceptable service ratios, response times or other performance objectives. Existing fire, police, and other governmental services will be sufficient to accommodate the service needs of this project. The Project will not necessitate the expansion of the equipment, facilities, or manpower of responsible fire, police, health, and school services in order to maintain current service ratios and response times. The Project also will not result in substantial adverse physical impacts associated with the provision of new or altered fire, police, health, or school facilities. There will be no need for new or physically altered governmental facilities. According to the Material Safety Data Sheets for hypochlorite and calcium chloride there are no special fire or explosion hazards associated with these chemicals. The Project would not result in negative impacts on public services.

### 3.15 Recreation

#### 3.15.A Checklist

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<i>Would/Does the project:</i>				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) 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"/>

#### 3.15.B Discussion

##### A) No Impact

The Project does not occur within a recreational facility or park and would not involve actions that would increase the use of or put at risk existing recreational facilities.

##### B) No Impact

The Project does not include recreational facilities or require the construction or expansion of recreational facilities, and therefore, would create no adverse physical effect on the environment from such facilities.

### 3.16 Transportation and Traffic

#### 3.16.A Checklist

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capability of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capability ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard 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) 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"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capability?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.16.B Discussion

##### A) Less than Significant Impact

The Project will cause a slight increase in traffic along US Highway 395 during construction. The increase in traffic during construction would be caused from trucks delivering materials, construction equipment, and construction workers commuting to the site. The construction traffic could cause some minor delays from larger, slower

moving vehicles; however the construction traffic would not exceed three trips per day and would be short-term. Over the life of the Project, truck deliveries for removal of adsorption cartridges and other main deliveries are expected to occur on average, once per month. Visits to the proposed facility by maintenance personnel are expected to occur on average, once monthly. The Project would not cause an increase in traffic that is substantial in relation to the existing traffic load and capability of the existing street system.

B) No Impact

During the construction period there would be a very small increase in traffic on U.S. Highway 395. The Caltrans Annual Average Daily Traffic (AADT) Count south of the project site, Mill Creek Bridge (PM 107.1), on US Highway 395 is estimated at 3,350 vehicles per day (Caltrans 2013). Data was accessed at [http://trafficcounts.dot.ca.gov/docs/2013\\_aadt\\_volumes.pdf](http://trafficcounts.dot.ca.gov/docs/2013_aadt_volumes.pdf). Due to the site constraints with respect to the limited size of the SEHOA property and overall Project, the number of trucks that would travel to the project site simultaneously would be very limited. Level of Service standards on US Highway 395 would not change as a result of the Project. Any nominal increase of traffic would be consistent with the designated/allowed uses of the roads. No impacts are expected to the Level of Service and the Project would not cause exceedance, either individually or cumulatively, of the Level of Service standard established by Mono County for designated roads or highways.

C) No Impact

The Project would not cause adverse impacts to alternative transportation plans or policies. The Project would create no change in air traffic patterns.

D) No Impact

Public facilities uses have occurred on the project site since the SEHOA was developed in 1983. The design of the proposed Project will not increase hazards to the area. There are no changes in the configuration of US Highway 395, changes to

ingress or egress, or other permanent physical alterations or changes in uses that would create additional hazards.

E) No Impact

The Project contractor will notify SEHOA residents of the construction work. Construction will not block any driveways or roadway access, adequate emergency access will be maintained, and no impacts to an emergency response would occur.

F) No Impact

The Project would not result in loss of parking spaces and no impact to available parking would occur.

### 3.17 Utilities and Service Systems

#### 3.17.A Checklist

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
e) Result in a determination by the wastewater treatment provider, which serves or may serve the Project that it has adequate capability to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capability 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"/>
h) Impact electrical supplies and services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.17.B *Discussion*

A) No Impact

The Project does not propose new sanitary sewer or connections to an existing municipal wastewater treatment plant. The Project would not result in the generation of any wastewater as a result of the treatment process and existing level of service would not be affected.

B) Less Than Significant Impact

The Project will not create a demand for new water or sewer infrastructure and will not require the construction of new water or sewer or the expansion of existing facilities. The Project will rehabilitate the existing water supply system and install a water treatment facility to remove arsenic from the potable water supply in order to meet the federal MCL for arsenic and respond to Mono County Department of Health Services' cease and desist order to the SEHOA requiring compliance with the arsenic MCL. Project construction would occur in a portion of the SEHOA property that has been previously disturbed and BMPs would be installed to avoid and reduce potential environmental effects to a level of less than significant.

C) Less Than Significant Impact

The project site does not have direct connections to existing stormwater drainage systems and contains no municipal storm water systems. Stormwater runoff is captured and infiltrated onsite. The new impervious surface would be negligible and any increase in runoff would be insignificant. Existing site drainage would not be affected by the Project.

D) Less than Significant Impact

The existing water supplies will be adequate to serve the Project during construction. Water will be provided as needed for dust suppression. Water demand during construction would be less than significant and no new or expanded entitlements would be necessary. No impact to water supply would occur following construction.

E) No Impact

The Project will result in no change to wastewater volumes and no change would occur to the capability of the current wastewater treatment provider's to serve the Project's demand in addition to the provider's existing commitments.

F-G) Less than Significant Impact

The Project will not create a waste stream, with the exception of spent adsorption cartridges. Solid waste generated from day-to-day operations would be non-hazardous and would be transported to the regional landfill. The volume of solid waste is expected to be less than that generated by a typical household, and is therefore, expected to have less than significant impacts to solid waste and solid waste disposal.

Nevada and California use different criterion to determine what is to be considered hazardous materials. In Nevada, only the Federal criterion applies. In California there is a separate set of criterion that exceeds the Federal criteria for determining hazardous materials. The adsorption cartridges will be tested to assure that California's criterion are met and will then be transported through California in a manner that meets the State's standards for transporting hazardous materials. U.S.

Ecology, the regional landfill, can accept the adsorption cartridges or the cartridges can be shipped back to the manufacturer, a qualified handler, for proper disposal.

The Project would not have a significant impact on the local landfill and would comply with state, federal and local policies related to solid waste.

H) No Impact

The Project would create no impact to existing electrical services nor cause electrical outages.

### 3.18 Mandatory Findings of Significance

#### 3.18.A Checklist

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<i>Does the project</i>				
a) 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) Have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a Project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.18.B *Discussion*

A) Less than Significant Impact

The Project will not substantially degrade the quality of the environment. The Project does not have the potential to degrade the quality of the environment substantially; reduce the habitat of 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.

B) Less than Significant Impact

The Project will result in no impacts that are individually limited but would be cumulatively considerable when viewed in connection with the effects of past projects, the effects of other current projects and the effects of probably future projects in the vicinity of the SEHOA project site and across Mono County. Other projects may occur in Coleville and Walker; however, impacts would not be cumulatively considerable when evaluated in the context of the proposed project's limited environmental effects and the short duration of construction impacts.

C) No Impact

The Project will have beneficial impacts to the health and safety of human beings by removing arsenic from the potable water supply to comply with the State and Federal MCLs. Arsenic exposure can cause a variety of adverse health effects. The severity of the effect depends on how much arsenic is in the water, how much water is consumed, how long a person has been drinking the water, and a person's general health. The National Research Council's 2001 report points to a preponderance of evidence that long-term ingestion of arsenic can increase the risk of skin, bladder, lung, kidney, liver, and prostate cancer. Non-cancer effects of ingesting arsenic may include cardiovascular, pulmonary, immunological, neurological effects, and endocrine problems such as diabetes. Therefore, removal of arsenic from the water supply will have a positive overall effect to SEHOA residents and visitors.

The Project will install site-specific BMPs to avoid and minimize potential environmental impacts and would have no negative effects on human beings directly or indirectly.

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