



## **Notice of Availability and Intent to Adopt a Mitigated Negative Declaration**

**Title:** Beck Reservoir UV Facility Project

**Location:** Fallbrook, California

**Contact Person:** Sherry Rebueno

**Review Period:** August 22, 2014 through September 24, 2014

**Project Description:** The Rainbow Municipal Water District (District) proposes to construct an ultra violet (UV) Disinfection and Chloramination (through chlorine and ammonia addition) Facility adjacent to Beck Reservoir. The District constructed Beck Reservoir in 1983 to provide finished water for fire suppression and emergency purposes and improve reliability for customers served by the Beck Pressure Zone of the water distribution system.

The UV Facility, including chemical storage, piping, and associated facilities would be located adjacent to Beck Reservoir. Construction would include grading, materials removal, installation of piping, construction of access roads and final landscaping. The facilities would be constructed to be consistent with the visual character of the neighborhood. The facades of the roofs would be clay tiles. A wrought iron and chain link perimeter fence would be installed that would partially obscure views of the UV facilities. Landscaping would be installed along the entrance to the facilities. Security lighting would be installed that would be downward facing and would be controlled by motion detectors.

Construction would occur over the course of 18 months beginning in May 2015. Work hours would be 7:00 am until 7:00 pm Monday through Friday. There would be no weekend or night work. Operation of the facility would be on a limited to high demand months to supplement the San Diego County Water Authority (SDCWA) flow and in emergency conditions when the aqueduct is shutdown. It is expected the UV facility would operate intermittently for a few months of the year. District personnel would visit the site each day regardless of the facility being in operation.

### **Mitigated Negative Declaration:**

In accordance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines, Rainbow Municipal Water District has prepared a Draft Initial Study/Mitigated Negative Declaration for the Beck Reservoir UV Facility Project. Based on the Initial Study, the District determined that the project would not have significant impacts on environmental resources, with the implementation of mitigation measures identified in the IS/MND.

### **Public Comment Period:**

August 22, 2014 through September 24, 2014

The public and all affected agencies are hereby invited to review the Draft IS/MND and submit written comments. The Draft IS/MND can be accessed at: Fallbrook Branch Library 124 S. Mission Road, Fallbrook, CA. A copy of the document can also be obtained via the District's website at: [www.rainbowmwd.com](http://www.rainbowmwd.com)

Written comments are due by September 24, 2014 and can be sent to:

ARCADIS U.S., Inc.

Attn: Kirstin Byrne

1525 Faraday Ave Suite 290

Carlsbad, CA 92008

[kirstin.byrne@arcadis-us.com](mailto:kirstin.byrne@arcadis-us.com)

**DRAFT**  
**INITIAL STUDY/MITIGATED NEGATIVE DECLARATION**

**BECK RESERVOIR UV FACILITY PROJECT**

**FALLBROOK, CA**

Prepared for:

Rainbow Municipal Water District



Prepared by:

ARCADIS U.S., Inc.

August 2014

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## Environmental Checklist

1. **Project Title:** Beck Reservoir UV Disinfection Facilities Project
2. **Lead Agency Name and Address:** Rainbow Municipal Water District  
3707 Old Highway 395  
Fallbrook, CA 92028
3. **Contact Person and Phone Number:** Sherry Rebueno
4. **Project Location:** 4355 Citrus Lane  
Fallbrook, CA 92028
5. **Project Sponsor's Name and Address:** Rainbow Municipal Water District  
3707 Old Highway 395  
Fallbrook, CA 92028
6. **General Plan Designation(s):** Semi-Rural Residential (SR-2)
7. **Zoning Designation(s):** Semi-Rural Residential (SR-2)  
Semi-public/Public Facilities
8. **Description of Project:** See Section Below
9. **Surrounding Land Uses and Setting.** See Section Below

## Environmental Factors Potentially Affected

The proposed project could potentially affect the environmental factor(s) checked below. The following pages present a more detailed checklist and discussion of each environmental factor.

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> Aesthetics                      | <input type="checkbox"/> Agriculture Resources                         | <input checked="" type="checkbox"/> Air Quality                    |
| <input checked="" type="checkbox"/> Biological Resources            | <input checked="" type="checkbox"/> Cultural Resources                 | <input checked="" type="checkbox"/> Geology, Soils and Seismicity  |
| <input checked="" type="checkbox"/> Hazards and Hazardous Materials | <input checked="" type="checkbox"/> Hydrology and Water Quality        | <input checked="" type="checkbox"/> Land Use and Land Use Planning |
| <input type="checkbox"/> Mineral Resources                          | <input checked="" type="checkbox"/> Noise                              | <input type="checkbox"/> Population and Housing                    |
| <input checked="" type="checkbox"/> Public Services                 | <input type="checkbox"/> Recreation                                    | <input checked="" type="checkbox"/> Transportation and Traffic     |
| <input checked="" type="checkbox"/> Utilities and Service Systems   | <input checked="" type="checkbox"/> Mandatory Findings of Significance | <input type="checkbox"/> Greenhouse Gases                          |

### Project Description and Background

The Rainbow Municipal Water District (District) proposes to construct an ultra violet (UV) Disinfection and chloramination (through chlorine and ammonia addition) facility adjacent to Beck Reservoir. The District constructed Beck Reservoir in 1983 to provide finished water for fire suppression and emergency purposes and improve reliability for customers served by the Beck Pressure Zone of the water distribution system. The Reservoir is an earthen embankment reservoir with a capacity of 204 million gallons (MG).

The U.S. Environmental Protection Agency (USEPA) promulgated the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) in 2006 that requires all public water systems with uncovered reservoirs either: 1) cover all uncovered finished water storage facilities; or 2) treat the discharge from the storage facility for inactivation and/or removal of 4-log virus, 3-log *Giardia lamblia*, and 2-log *Cryptosporidium*. In order to prevent non-compliance with this regulation, the reservoir was taken out-of service in early 2013. Currently, the reservoir is still inoperative and physically disconnected from the distribution system. In order to meet these regulatory requirements, RMWD would treat water discharged from the Beck Reservoir using UV and chlorine disinfection as opposed to covering the reservoir. This approach would meet the regulatory requirements and provides multi-barrier disinfection. Ammonia would be added to generate chloramines for the distribution system residual. The existing distribution system currently operates with chloramines, so there is no change to the distribution system disinfection residual approach.

The location of the UV facilities was selected based on hydraulics for operation with the Beck Reservoir. The primary objective was to provide water to the UV facility by gravity and prevent the need for a pump station.

## Existing Facilities

The proposed project is located within the unincorporated community of Fallbrook, in northern San Diego County, California (Figure 1). The proposed project would be located on a currently vacant residential lot adjacent to Beck Reservoir. The proposed project site is approximately 4 acres in size, and is accessible via Vern Drive and Citrus Drive. Details on existing and proposed facilities are provided below.

**Beck Reservoir:** Beck Reservoir is an open reservoir that has a storage capacity of 204 million gallons (MG). The reservoir utilizes a concrete liner and construction was completed in 1983. Beck Reservoir was designed with a High Water Level (HWL) at Elevation 897 and a floor elevation at 845 based on the National Geodetic Vertical Datum of 1929 (NGVD 29). The reservoir utilizes a common 30-inch inlet/outlet. An underdrain system, consisting of 3-1/2 inch PVC pipes, collects water that has seeped beneath the liner and is piped to a 36-inch conduit to a sump structure located at the south end of the reservoir. This structure allows RMWD to monitor the amount of seepage occurring in the reservoir and is a means to determine if seepage is excessive. An energy dissipation structure occurs at the south end of the reservoir and is used for draining the reservoir (through a 24-inch pipe) and reservoir overflow (through a 30-inch pipe).

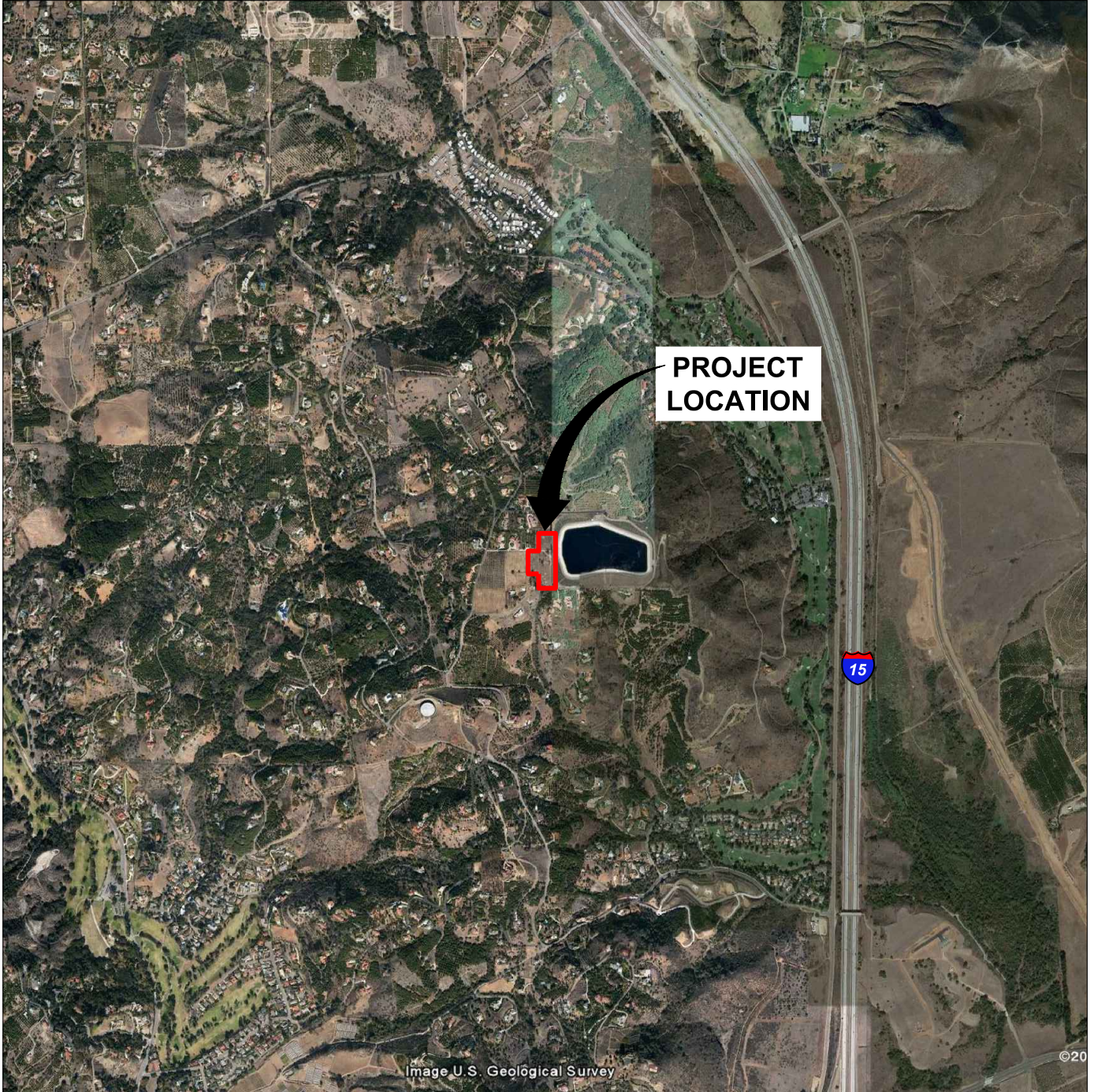
Beck Reservoir feeds into RMWD's Line Q-Q, the distribution water pipe for the Beck pressure zone, which ranges from 36-inch to 42-inch pre-stressed concrete cylinder pipe. The reservoir was isolated from the distribution system in early 2013 following the EPA's LT2ESWTR enforcement.

The existing pipeline includes the distribution of water from the Pala Mesa Tank and Beck Reservoir. The 42-inch Line Q-Q pipeline was cut and blind flanged to the west of Beck Reservoir when the reservoir was removed from service in early 2013. These blind flanges would be removed and new piping connected during construction to provide water to the UV facility.

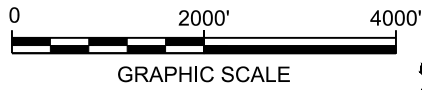
The reservoir is currently physically disconnected from the system. The Beck pressure zone is served with water from the Pala Mesa Tank.

**New Facilities:** The location and layout of the UV Disinfection Facility was determined based on topography, hydraulics, accessibility, manufacturer recommendations, and discussions with RMWD. The location of the UV Disinfection Facility was ultimately selected based on favorable hydraulics. The primary objective was to provide gravity flow to the new disinfection facility and prevent the need for pumping to the site purchased directly adjacent to Beck Reservoir by RMWD. The site layout is shown in Figure 2.

The UV building would be located on the southern portion of the site. Access would be provided all around the facility. By locating the building as far south as possible, excavation for the gravity fed facility would be minimized. The UV building houses the three UV reactors, electrical room, control room, storage room, and San Diego Gas and Electric (SDG&E) compartment.



MAP SOURCE: Google Earth Pro™ 2009, 33.353887°, -117.172477°



GRAPHIC SCALE



AREA LOCATION

CALIFORNIA



RAINBOW MUNICIPAL WATER DISTRICT  
BECK RESERVOIR UV FACILITY PROJECT  
INITIAL STUDY

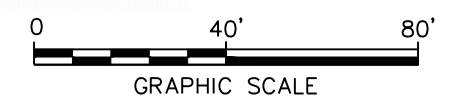
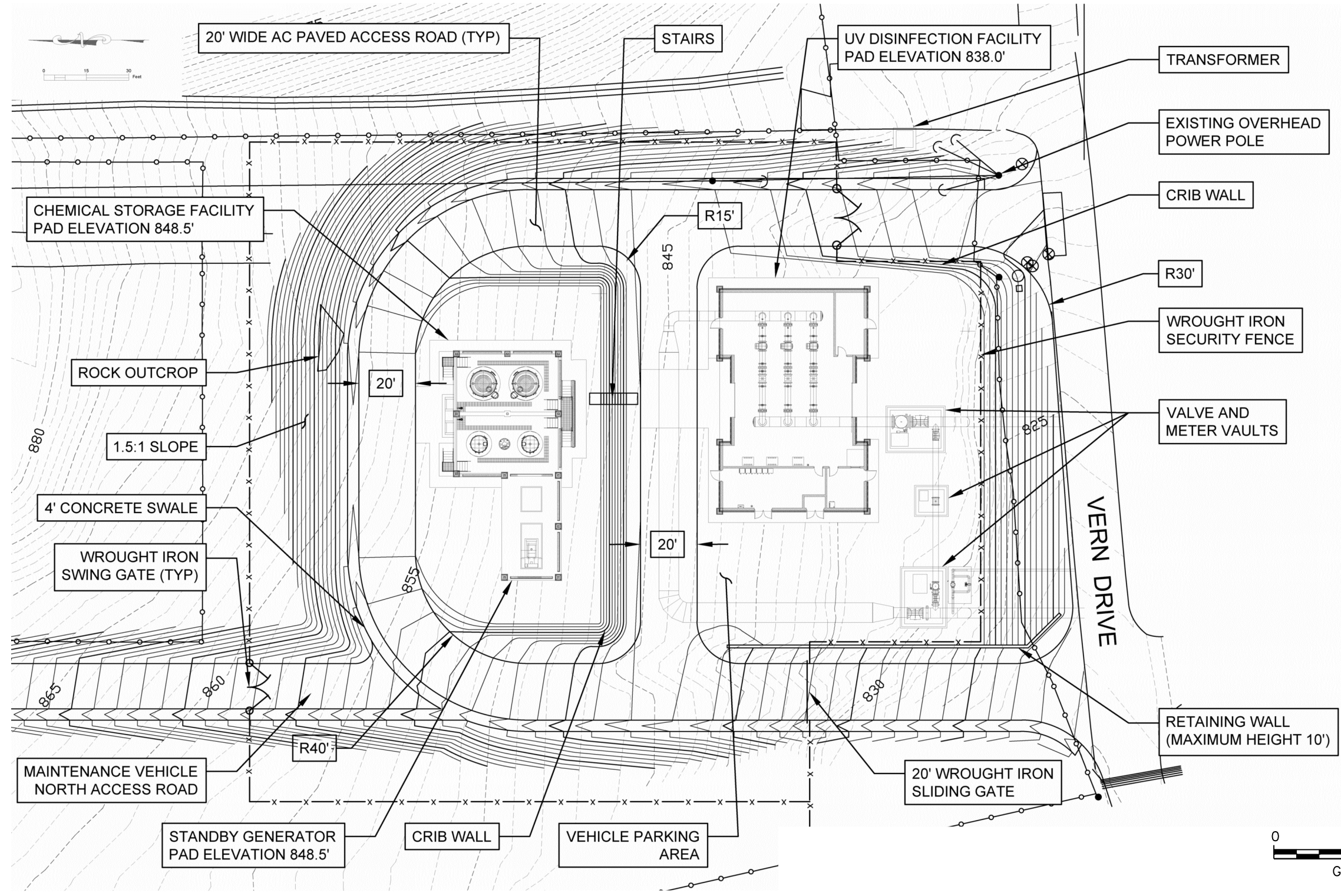
SITE LOCATION MAP



FIGURE

1





BECK RESERVOIR UV FACILITY PROJECT  
FALLBROOK, CALIFORNIA  
DRAFT INITIAL STUDY

PRELIMINARY SITE LAYOUT




FIGURE  
2

CITY:ROSEVILLE D:\GROUP-ENV\CAD DB\bar PM: G:\ENV\CAD\Roseville-CA\ACT\06755004\0000\00300\06755004\0000 B02.dwg LAYOUT: 2. SAVED: 6/2/2014 2:13 PM ACADVER: 18.1S (LMS TECH) PAGES: 21 PLOT: PLT\FULL.CTB PLOTTED: 6/2/2014 2:14 PM BY: ROBITAILLE, BEVERLY

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google 4120x.jpg  
google 675B.jpg



BECK RESERVOIR UV FACILITY PROJECT  
FALLBROOK, CALIFORNIA  
DRAFT INITIAL STUDY

**UV DISINFECTION FACILITY  
CONTRACTOR PARKING AND STAGING  
AREAS**



FIGURE  
**3**

SOURCE: GOOGLE EARTH 2012, 33.353887°, -117.172477°: Figure 1 - UV Disinfection Facility Contractor Parking and Staging Areas from Beck Reservoir UV Disinfection Project Site CEQA Questions March 17, 2014

The chemical facility would be located north of UV building with an access road provided between the two facilities. The sodium hypochlorite and ammonia storage tanks would be located within their own containment areas. The chemical facility would have a common canopy with screen walls to provide a facility which is aesthetically consistent with the surrounding residences and which also protect the tanks and equipment from elements.

The generator and uninterrupt power supply (UPS) would be located north of the UV building. These facilities would have screen walls similar to the chemical facility to provide sound attenuation. A canopy would not be provided on the generator due to heat and exhaust concerns.

An access road would be constructed around all facilities with entrances located on the south side of the site. There would be two entrance locations on the south side of the property; one near the east side and one near the west side. The southwest entrance would be the main point of access to the facility. Chemical deliveries would utilize the south entrances and roads within the site would be designed in consideration of chemical delivery truck turning radius. Access through to the site using the southern entrances would be with use of a card reader assigned to District staff.

A rendering showing the proposed architecture of the structures, access roads, and landscaping for the site is shown in Figure 4.

## **Piping**

The inlet and outlet yard piping would be 42-inch cement mortar lined & coated (CML&C) steel pipe that enters the UV building on the southeast end of the site and leaves the facility on the southwest portion of the site. A valve vault would be located on the east side of the property that would house an isolation valve and check valve on the inlet pipe. Another valve vault would be located on the west side of the property that would house an isolation valve on the outlet pipe. A 24-inch pipe would be installed between the inlet and outlet pipe to fill Beck Reservoir. An isolation valve and check valve would be installed on this pipeline within the outlet valve vault to prevent backflow of water into the distribution system from Beck Reservoir without first going through the UV disinfection facility. A flow meter and vault would be located between the inlet and outlet valve vaults to measure the flow entering Beck Reservoir. Another isolation valve would be installed on this interconnect in the inlet valve vault to perform maintenance on the flow meter or pipeline. The Canonita piping interconnect, a connection between the higher pressure Canonita zone and the Beck pressure zone, would occur in the outlet valve vault to supplement flows from the UV facility to ensure a constant flow is provided and would be controlled with a modulating control valve. A pressure regulating valve would also be installed to allow Canonita water into the Beck Zone if the pressure drops. All new piping would be welded/restrained steel pipe.



NOT TO SCALE

BECK RESERVOIR UV FACILITY PROJECT  
FALLBROOK, CALIFORNIA  
DRAFT INITIAL STUDY

SITE RENDERING



FIGURE  
4

42-inch CML&C steel pipe would be installed from the UV building on the reactor discharge prior to the 84 inch chlorine contactor. Chemical trenches would be utilized to route the chlorine and ammonia injection piping.

### Chemical Storage

Sodium hypochlorite (NaOCl) and aqueous ammonia (NH<sub>4</sub>OH) would be stored onsite in tanks for injection into the discharge pipeline to achieve primary disinfection with free chlorine and distribution system disinfection with chloramines. Sodium hypochlorite at 12.5 percent concentration and aqueous ammonia at 19 percent concentration would be used similar to what is used at the Fallbrook Public Utility District's (FPUD) Red Mountain Reservoir UV facility.

The hypochlorite would be sized to provide 30 days of storage at average daily demand the ammonia tanks would be sized to provide 115 days of storage at average daily demand as shown in Table 1. The sodium hypochlorite dosing was assumed to be the same for the average daily demand, maximum daily demand, peak hour demand, and ultimate average daily demand with an average dose of 4 mg/L and a maximum dose of 6 mg/L.

**Table 1  
 Chemical Facilities Design Criteria**

<b>Parameter</b>	<b>NaOCl</b>	<b>NH<sub>4</sub>OH</b>
<b>Average Dose (mg/L)</b>	4	0.56 <sup>1,2</sup>
<b>Maximum Dose (mg/L)</b>	6	0.89 <sup>3</sup>
<b>Design Solution Strength</b>	12.5%	19%
<b>Minimum Day Use (gpd)</b>	14.6	1.9
<b>Average Day Use (gpd)</b>	263.6	34.7
<b>Maximum Day Use (gpd)</b>	527.2	69.5
<b>Peak Hour Day Use (gpd)</b>	790.8	104.2
<b>Ultimate Average Day Use (gpd)</b>	1025.2	135.1
<b>Total Useable Storage Volume (gal)</b>	8,000	4,000
<b>Days of Storage at Average Daily Flow</b>	30.3	115.2
<b>Days of Storage at Maximum Daily Flow</b>	15.2	57.6
<b>Days of Storage at Peak Hour Flow</b>	10.1	38.4
<b>Days of Storage at Ultimate Average Flow</b>	7.8	29.6

Sodium hypochlorite and aqueous ammonia would have two storage tanks each. The sodium hypochlorite tank storage volume would be a total of 9,000 gallons with 4,000 gallons in each tank. The aqueous ammonia tank storage volume would be a total of 5,000 gallons with 2,000 gallons in each tank. As per California Accidental Release Program (Cal ARP) requirements, a Risk Management Plan would be required that identifies consequences of an accidental release, emergency response programs, hazard analysis, operating procedures, and other information involved with the source.

## **Construction**

Construction of the Beck Reservoir UV Facilities would occur over the course of 18 months beginning in May 2015. Site preparation would occur first and would include removal of existing vegetation and driveway, general grading, soil ripping, and rock breaking. Materials removed during site preparation would be placed on trucks and off-hauled from the site. Materials expected to be removed would include vegetation, soil, rocks, and concrete. Approximately 9,700 cubic yards of material is expected to be removed from the site and deposited at landfill.

Two construction trailers and contractor parking area that would accommodate up to 10 vehicles would be constructed on the southwest corner of the site and near the center of the project site as depicted on Figure 3. Work hours would be 7:00 am until 7:00 pm Monday through Friday. There would be no weekend or night work. During the fall construction period, temporary lighting would be used to provide a safe work area.

The subsurface piping would be installed using traditional cut-and-cover techniques (trenching). Trenches would be excavated to a depth up to approximately 11.5 feet and would include shoring to provide trench wall stability. Excavators would be used to construct trenches and excess soil would be placed in trucks and off-hauled from the site. It is estimated that approximately five feet of piping would be installed per day on average, with sand placed at the bottom of the trench to support the pipe. All cement mortar lined and coated steel pipe will be welded.

Once subsurface piping has been installed, concrete foundations for the buildings would be constructed. The site would be graded and compacted to prepare the site for the foundations. Concrete trucks would deliver concrete to the site.

Construction of the facility buildings would include split-face concrete masonry unit walls accented with ground face concrete block and stone veneer. A clay tile roof would be installed on all buildings. Scaffolding would be constructed during building construction and small cranes would be used for roof construction.

After the construction of the facility buildings, the site would be graded and compacted. Asphalt paving would be installed for access roads and concrete walkways would be constructed between buildings. A 20 foot access road would be constructed along the perimeter of the facilities. Permanent fences would be installed around the UV facility and the property line. The fencing in front of the facility (Vern Drive) would be an architectural

wrought iron fence with the remainder of the fencing being chain link. Gates would be installed at the southeast and southwest entrances that require a card reader to enter the site. Motion activated security lighting would be installed on the facilities and intrusion alarms installed on the valve and meter vaults and buildings. Landscaping would be installed on the south side of the facility in front of the wrought iron fence on Vern Drive.

### **Operation**

The Beck Reservoir UV Facility would be expected to operate in high demand months to supplement the San Diego County Water Authority (SDCWA) flow and in emergency conditions when the aqueduct is shutdown. It is expected the UV facility would operate intermittently for a few months of the year, District personnel would visit the site each day regardless of the facility being in operation. To operate from Beck Reservoir, the water order from SDCWA would be reduced to zero or less than the system demand, the Pala Mesa Tank would be isolated from the system, then the UV facility would be brought online allowing flow from Beck Reservoir. When the UV facility is not in use, the reactors would be drained to prevent fouling and the isolation valves would be closed to prevent water from entering the facility.

# Environmental Checklist

## I. Aesthetics

<u>Issues (and Supporting Information Sources):</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
<b>1. AESTHETICS—Would the project:</b>				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input 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"/>
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"/>

### Setting

The proposed project location is an approximately 4 acre vacant lot that was formerly a residence. There is limited vegetation, mainly consisting of non-native grasses, shrubs and scattered eucalyptus trees. A small avocado orchard occurs on the site. Public views are accessible from Citrus Drive and Vern Drive and from residences on these roads. Surrounding land use includes ranch-style homes with large lots and small-scale agriculture such as avocado trees. A home previously occupied the lot but was destroyed by fire and the proposed project site is currently vacant. The project site is visible by several neighboring homes that are situated on Vern Drive. Construction would be visible from roads and by neighboring homes. A temporary fence would be installed during construction that would partially obstruct views of the proposed project site during construction.

On February 4, 2014, the District held a meeting with neighbors to discuss the design of the facilities. The neighbor’s input was considered and design changes, including a sloped roof were incorporated into the design. Figure 4 illustrates a rendering of the facilities.

The facilities would be constructed to be consistent with the visual character of the neighborhood. The facades of the roofs would be clay tiles. A wrought iron and chain link perimeter fence would be installed that would partially obscure views of the UV facilities. Landscaping would be installed along the entrance to the facilities. Security lighting would be installed that would be downward facing and would be controlled by motion detectors.



## **Discussion**

- a) **No Impact:** There are no designated scenic vistas in the vicinity of the proposed project area. Therefore, construction and operation would not cause impacts on scenic vistas.
- b) **Less than Significant Impact:** There are no rock outcroppings or historic buildings or scenic highways within the vicinity of the proposed project. Non-native grasses, trees, and shrubs would be removed during construction which would result in a temporary change to scenic resources. The proposed project area would be landscaped with native vegetation on the south end of the facility at Vern Drive after the facilities have been constructed and the remainder of the site would be hydroseeded or planted with native, drought tolerant vegetation. The landscaping would provide a vegetative buffer between the neighboring view and the facilities. The viewshed of the site would change, but would not degrade the overall visual character of the surrounding area.
- c) **Less than Significant Impact:** Construction would result in temporary views of construction equipment and materials that would change from the current public viewshed of the proposed project site. Views of construction would be visible from residences located on Citrus Drive and Vern Drive and other surrounding streets. A temporary fence would be constructed around the perimeter of the proposed project site that would serve to buffer the views during construction. A temporary sound wall would be constructed at the southern and western project boundaries as required by Mitigation Measure XI-1. The sound wall would also serve to buffer the view of construction. The aesthetic changes that would occur during construction would be temporary and would not result in the degradation of visual character or quality of the area and would be considered temporary and a less than significant impact.

Upon completion of construction, the public views of the facility would be considered aesthetically consistent with the surrounding neighborhood. The facility would be designed to have exteriors similar to surrounding residences and clay tile roofs that would be similar to the surrounding residences. Landscaping would be installed that would buffer the direct view of the facility. The facility would change the current aesthetics of the site but would not result in a permanent degradation of the visual character or quality of the surrounding area and would therefore be a less than significant impact.

- d) **Less than Significant Impact:** Construction would include the use of equipment that may produce temporary glare during construction. A temporary fence and temporary sound wall would be installed to reduce the potential for glare during construction. Construction would occur during the hours of 7:00am and 7:00pm Monday through Friday. During the fall months when days are shorter, some night work would occur (between sunset and 7:00 pm) and temporary lighting would be necessary to provide a safe work site. Lighting would be downward facing and would not project beyond the proposed project site. Because any glare that would be

produced during construction would be considered temporary and minimal lighting would be used during construction, impacts related to increased light and glare during construction would be considered less than significant.

The proposed project would result in new structures and facility lighting. The buildings would be constructed from split-face concrete masonry units and have clay tile roofs that would not result in increased glare. Facility security lighting would be installed at the facility. Facility lighting would be downward facing controlled by motion detector which would only be triggered in the event of an intruder at the facility.

## II. Agricultural Resources

<u>Issues (and Supporting Information Sources):</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
<b>2. AGRICULTURE RESOURCES</b>				
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.				
<b>Would the project:</b>				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland of Statewide Importance, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Setting

The proposed project is located within a residential neighborhood designated as rural residential according to the County of San Diego General Plan. The surrounding residences include large lots with small production agriculture.

**Prime Farmland:** is the farmland that has the best combination of physical and chemical features that are able to provide long-term agricultural production. This land has soil quality, growing season, and moisture supply to produce sustained high yields.

**Farmland of Statewide Importance:** is land that is similar to Prime Farmland but may have greater slopes or lower moisture supply.

**Unique Farmland:** is land that contains lesser quality soils used for sustained agricultural production. This land is usually irrigated but may include non-irrigated land.

### Discussion

- a) **No Impact.** There is no designated Prime Farmland, Unique Farmland or Farmland of Statewide Importance within the vicinity of the proposed project. The property is not currently in agricultural production.
- b) **No Impact.** The project site is not subject to the California Conservation Act of 1965, more commonly known as the Williamson Act, which provides a reduction in property taxes in return for agreeing to protect open space or agricultural.
- c) **No Impact.** The proposed project area is located within a rural residential neighborhood. The lot the proposed project would be located on what was previously a residence that did not contain land that was in high agricultural production.

Implementation of the proposed project would not result in the conversion of Farmland of Statewide Importance to non-agricultural uses.

### III. Air Quality

<u>Issues (and Supporting Information Sources):</u>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<b>3. AIR QUALITY</b>				
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. <b>Would the project:</b>				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>

#### Setting

The proposed project is located in northern San Diego County and within the San Diego County Air Pollution Control District (SDAPCD) jurisdictional boundaries. The SDAPCD enforces the region's air quality plans and policies. Activities that have the potential to produce air emissions include use of equipment and machinery during construction and operation of the facility.

#### Discussion

- a) **Less than Significant Impact:** The project would consist of constructing and operating a disinfection facility that incorporates UV and chlorine disinfection adjacent to the Beck Reservoir. Project air emissions would consist of short-term construction activities and long-term operational emissions. Construction emissions would result from the use of equipment such as excavators and bulldozers and would be considered temporary and would cease at the completion of the construction. To reduce the potential for air emissions during construction, equipment would be maintained in good repair.

Project operation would not increase employee levels at the facility. It is anticipated that daily site visits would occur to ensure proper facility operation. These additional vehicle trips would be negligible and not result in a substantial increase in regional air pollutants from employee vehicles. Because the project would not lead to substantial long-term operational emissions, it is not expected to conflict with either the Regional Air Quality Strategy or the California State Implementation Plan.

- b) **Less than Significant Impact:** The SDAPCD has established screening-level criteria for all new source review (NSR) in SDAPCD Rule 20.2 as are presented in Table 1. These screening-level criteria can be used as numeric methods to demonstrate that a project's total emissions would not result in a significant impact to air quality.

**Table III-1  
 San Diego Air Pollution Control District Pollutant Thresholds**

Pollutant	Significance Threshold	
	lb/day	tons/year
Volatile Organic Compounds (VOC)	137	15
Nitrogen Oxides (NO <sub>x</sub> )	250	40
Carbon Monoxide (CO)	550	100
Sulfur Oxides (SO <sub>x</sub> )	250	40
Particulate Matter (PM)	100	15

Short-term, construction-related emissions were modeled using CalEEMod, Version 2013.2.2 computer program (Appendix A). Input parameters were based on default model settings and project-specific information where available. The modeled maximum daily and annual construction emissions are summarized in Table III-2.

**Table III-2  
 Modeled Construction Emissions**

Construction Year	Maximum Daily Emissions (lb/day)					Annual Emissions (tons/year)				
	VOCs	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM	VOCs	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM
2015	5.7	61.3	46.9	0.05	21.6	0.4	3.5	2.5	0.0	0.4
2016	6.9	42.3	29.9	0.04	9.2	0.5	3.1	2.3	0.0	0.3
Screening Level Thresholds	137	250	550	250	100	15	40	100	40	15
Exceeds Threshold?	No	No	No	No	No	No	No	No	No	No

As illustrated above, construction emissions would not exceed the screening level thresholds set by SDAPCD. Furthermore, construction activities would be subject to the fugitive dust control rule SDAPCD Rule 55. The project would have no more than ten truck trips per day and would not generate substantial vehicle trips during operation. Therefore, the project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.

- c) **Less than Significant:** As described in (b) above, project emissions would not exceed the SDAPCD's screening level thresholds. Therefore, the emissions associated with the project are not expected to create a cumulatively considerable impact.
- d) **Less than Significant:** Project construction would result in short-term generation of diesel exhaust emissions from the use of off-road diesel equipment required for construction activities. Diesel exhaust is identified as a toxic air contaminant (TAC) for chronic exposure. Because the use of mobilized equipment would be temporary, construction-related TAC emissions would not be anticipated to expose sensitive receptors to substantial pollutant concentrations.

Diesel exhaust emissions would also be generated from use of the project's diesel-powered emergency generator. Prior to installation of the emergency generator, the SDAPCD requires an air quality permit to be obtained, as it does for all non-exempt stationary sources. As part of the permit application, the SDAPCD conducts a health risk assessment to ensure a stationary source does not have the potential for significant localized health impacts. The permit application is not approved if it does not pass the health impact assessment. Therefore, operational TAC emissions would not be anticipated to expose sensitive receptors to substantial pollutant concentrations and impacts would be less than significant.

- e) **Less than Significant:** The project construction would not generate any new odors or subject sensitive receptors to new significant odors. Equipment and construction would produce minor, temporary odors from equipment. There are some operational odors associated with an uncovered treated water storage facility. Because the storage facility already exists, these odors are part of the baseline conditions. The addition of the disinfection facility would help increase the RMWD's ability to meet water quality standards, and therefore the purified water should not have any significant odors worse than that which currently exists. Therefore, the project would be less than significant.

## IV. Biological Resources

<u>Issues (and Supporting Information Sources):</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
<b>4. BIOLOGICAL RESOURCES— Would the project:</b>				
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, 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 native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>

### Setting

The proposed project is located on a former residential lot. Vegetation is dominated by non-native grasses (NNG). The site boundaries are dominated by mature shrubs and trees, including eucalyptus. The property had been fully irrigated indicating low yield agricultural use, with small avocado trees dispersed at semi regular intervals in some areas. Currently there is no water source to the site. There is evidence of ground squirrel activity and mole mounds.

A reconnaissance -level site visit was conducted on January 15, 2014. The dominance of non-native vegetation and evidence of agricultural use indicates that the property has been continuously disturbed. Surrounding land uses include large lot, rural residential with some low yield agriculture such as small avocado orchards and small vineyards. Because of the disturbance at the proposed project location and surrounding land uses, there is limited potential for special status plants and animals to occur within the proposed project boundary.



## **Discussion**

- a) **Less than Significant.** The California Natural Diversity Database (CNDDDB) for the U.S. Geological Survey (USGS) Bonsall 7.5 minute quadrangle was queried for a list of state and federal special status species with potential to occur within the proposed project area. The CNDDDB query returned two species with potential to occur within the vicinity of proposed project; coastal California gnatcatcher (*Polioptila californica californica*) and coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*). Of these two species, none have the potential to occur on the proposed project site because of lack of suitable habitat. Owing to past and ongoing disturbance at the site, limited habitat for special status species occurs at the project site. Because there is limited potential for special status species to occur on the proposed project site, impacts related to special status species would be less than significant.
- b) **No Impact.** The majority of habitat at the proposed project site consists of non-native annual grasses, agricultural vegetation and remnants of landscaping. The proposed project area does not contain any riparian habitat or sensitive habitats identified by California Department of Fish and Wildlife. Because of past and ongoing disturbance at the project site, there is limited habitat for sensitive habitat to occur. Reconnaissance-level site survey on January 15, 2014 did not reveal any potential for sensitive habitats to occur at the project site.
- c) **No Impact.** The proposed project area does not contain any wetlands, or waters of the U.S. that would be considered wetlands. The proposed project would have no impact on wetlands as defined by Clean Water Act Section 404.
- d) **Less than Significant.** The proposed project occurs within a rural residential neighborhood and no established wildlife corridors, or native wildlife nursery sites occur within the proposed project site. Common wildlife species such as blacktailed deer, raccoon, opossum, striped skunk, and coyote occupy open space habitats in the vicinity of the proposed project area. Movement of these species would be temporarily inhibited by project construction as species would avoid human contact and activity. The common species expected to occur within the project area are those that are generally adapted to rural residential neighborhoods and would not be affected by increased noise and human presence. Therefore, impacts related to wildlife movement corridors would be less than significant.
- e) **No Impact.** The project does not involve the removal of native trees. Because of past and ongoing disturbance at the proposed project site, no native trees that would be included in a tree preservation ordinance occurs at the proposed project site.
- f) **Less than Significant.** The proposed project is located within the North County Multi-Species Conservation Plan, part of the San Diego County Multi-Species Conservation Program. Activities associated with construction and operation of the Beck Reservoir UV facilities conform to the plan. The site is currently zoned as rural

residential, the District will work with the County to either revise the zoning or obtain a variance. Regardless of the method to obtain compliance with the current zoning, the project site will remain in compliance with the North County Multi-species Conservation Plan.

## V. Cultural Resources

<u>Issues (and Supporting Information Sources):</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
<b>5. CULTURAL RESOURCES—</b>				
<b>Would the project:</b>				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Setting

The proposed project site is situated in a rural residential neighborhood on a former residential lot. A database search for the Bonsall U.S. Geological Survey 7.5 minute quadrangle was received from the South Coast Information Center and did not identify any previously recorded sites on the proposed project site. On January 15, 2014, Registered Professional Archeologist Brian Glenn completed an on-site pedestrian survey of the proposed project area. The site visit did not reveal any additional data regarding potential historical resources at the proposed project site.

### Discussion

- a) **Less than Significant Impact with Mitigation:** No historical resources have been identified as a result of records search and survey of the area of potential direct impacts. Analysis of survey data has determined that no known or suspected California Register of Historical Resources [CRHR] eligible resources are present. Site survey did not result in further indication that historical resources would be present. Because it is unlikely that historical resources are present, impacts would be less than significant. Implementation of a Project Specific Environmental Tailboard (PSET) would provide sensitivity training to workers and establish procedures for identifying historical resources and ensuring those resources are protected until such time as they are evaluated.

**Mitigation Measure V-1:** Project Specific Environmental Tailboard (PSET). Provide sensitivity training to contractor personnel prior to the start of construction. Contractor personnel would be trained on the procedures for identifying historical resources and protocols for unintended discoveries and relevant elements of Health and Safety Section 7050.5(b) and Public Resources Code Section 5097.98) during construction.

With the implementation of Mitigation Measure V-1, impacts related to unknown historical resources would be less than significant.

- b) **Less than Significant Impact with Mitigation:** No archaeological resources have been identified as a result of records search and survey of the proposed project area. Analysis of survey data has determined that no known or suspected CRHR-eligible resources are present.

Implementation of Mitigation Measure V-1 would provide sensitivity training to workers and establish procedures for identifying archaeological resources and ensuring those resources are protected until they are evaluated in the event archeological resources are discovered during construction. Because data and site survey have not identified potential for archeological resources, impacts would be less than significant.

- c) **Less than Significant Impact:** Examination of geologic maps indicates that formations present within the area of potential impact do not contain paleontological resources. Analysis of geologic maps indicates the presence of paleontological resources near the surface or at depth is unlikely. Potential CRHR-eligible paleontological resources are not anticipated during construction as the geology of the potential impact area precludes the presence of paleontological resources.
- d) **Less than Significant Impact with Mitigation:** Survey investigations provided no evidence of human remains and none are expected to be present, but there is some potential for ground disturbing activities to disturb currently unknown human remains. Implementation of the Mitigation Measure V-1 (including relevant elements of Health and Safety Section 7050.5(b) and PRC Section 5097.98) would provide sensitivity training to workers and establish procedures for suspending work and notifying the assigned Rainbow Municipal Water District staff and construction supervisors should human remains be detected would reduce potential adverse impacts on human remains to a level of Less Than Significant.

## VI. Geology, Soils, and Seismicity

<u>Issues (and Supporting Information Sources):</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
<b>6. GEOLOGY, SOILS, AND SEISMICITY— Would the project:</b>				
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 checked="" type="checkbox"/>	<input 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 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 checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Discussion

- ai) **Less than Significant Impact.** The proposed project is not located within an active fault zone. The Alquist-Priolo Earthquake Fault Zoning Map Act identifies the Elsinore Fault Zone, located to the east of the proposed project area, as an active fault. Because no mapped active or potentially active faults are known to pass through the immediate project region, the potential for surface fault rupture is low and the impact would be less than significant.
- aii, aiii) **Less than Significant Impact.** In the event of an earthquake along the Elsinore Fault, it is likely that the proposed project area would be subject to some ground shaking. The level of intensity would be determined by the magnitude and location of the earthquake. Because the proposed project is not located immediately within the fault zone, the severity of ground shaking would not be expected to result in significant structural damage.

The proposed project is not located within areas of liquefaction according to known liquefaction and landslide maps provided from the California State Department of Conservation as required by the Alquist-Priolo Earthquake Fault Zoning Map Act (California Department of Conservation, 2014). The geotechnical and seismic design criteria are required to conform to the seismic requirements of the California Building Code (Title 24) and thus, project-related impacts to seismic shaking would be considered less than significant.

aiv) **Less than Significant Impact.** The proposed project is not located within an area known for landslides according to the California Department of Conservation (2014). The proposed project site is relatively flat and not located on a slope or within an area known for slope instability. Because the proposed project location is located on a relative flat parcel and the area is not mapped as a known landslide area, impacts would be less than significant.

b) **Less than Significant Impact.** Project construction would include grading and earthmoving activities on the southern portion of the approximately 4 acre project site that could expose site soils to erosive forces of heavy winds, rainfall, or runoff. Earthwork is expected to include the demolition and excavation of existing pavement, the stripping of surface vegetation, partial excavation of existing soils, and construction of the UV facilities. San Diego County requires that the project sponsor develop a grading plan showing existing and proposed grades, and erosion control features to be implemented during project construction.

The proposed project would be required to comply with the Phase II National Pollution Discharge Elimination System (NPDES) permit requirements issued by the State Water Resources Control Board (SWRCB) as discussed in detail in *Hydrology and Water Quality*. The project sponsor would be required to develop a site-specific Stormwater Pollution Prevention Plan (SWPPP). The SWPPP would include the use of standard best management practices (BMPs) to control erosion and sedimentation as required by the SWRCB. Potential soil erosion hazards associated with project construction would therefore be considered less than significant.

c) **Less than Significant Impact.** The proposed project is not located in an area known for landslides, liquefaction, subsidence or lateral spreading. Construction of the proposed project would include excavation and grading to approximately 15 feet below ground surface but would not be so extensive to create unstable conditions on-site or off-site. Soils at the proposed project site are considered stable. Therefore, impacts related to geologic or soil instability would be less than significant

d) **Less than Significant Impact.** Expansive soils are generally clayey soils that swell when wetted and shrink when dried. Expansive soils located beneath structures can result in cracks in foundations, walls, and ceilings. Soils within the proposed project area are Fallbrook sandy loam (U.S. Department of Agriculture,

2014). Fallbrook sandy loam soils are not considered expansive soils with low shrink/swell potential. Because the site is located on soils that are not considered expansive, the risk of life or property would be less than significant.

- e) **No Impact.** The project would not include the installation of septic tanks or alternative wastewater disposal systems.

## VII. Hazards and Hazardous Materials

<u>Issues (and Supporting Information Sources):</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
<b>7. HAZARDS AND HAZARDOUS MATERIALS</b>				
<b>Would the project:</b>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Discussion

- a) **Less than Significant Impact.** In the short term, construction activities would require the use of certain materials such as fuels, oils, solvents, and glues that in large quantities could pose a potential hazard to the public or environment if improperly used or inadvertently released. Inadvertent release of large quantities of these materials into the environment could adversely impact soil, surface waters, or groundwater quality. However, the on-site storage, or disposal of large quantities of potentially hazardous materials are not required for a construction project of the proposed size and type. The contractor shall be required to follow manufacturer's recommendations on use, storage, and disposal of chemical products used in construction.



During operation of the proposed project, chemicals including sodium hypochlorite and aqueous ammonia would be stored on-site for use during disinfection and distribution. The chemicals would be stored in the chemical facilities north of the UV building and would be stored according to manufacturer's recommendations. The sodium hypochlorite storage volume would be a total of 8,000 gallons with 4,000 gallons in each tank. The aqueous ammonia storage volume would be a total of 4,000 gallons with 2,000 gallons in each tank. California Accidental Release Program (Cal ARP) requirements would be exceeded, and therefore, a Risk Management Plan would be required that identifies consequences of an accidental release, emergency response programs, hazard analysis, operating procedures, and other information involved with the source.

- b) **Less than Significant Impact.** Chemicals on site would be stored in the chemical facilities located to the north of the UV building. These chemicals would be transported, handled, and stored according to manufacturer's specifications. All regulations regarding the transport, handling, and storage of sodium hypochlorite and aqueous ammonia would be adhered to at all times.
- c) **No Impact.** There are no schools within ¼ miles of the proposed project area. The closest school is Live Oak Elementary School located at 1978 Reche Road, approximately 3.6 miles to the northwest of the proposed project area. Because there are no schools located within ¼ mile of the proposed project, there would be no impact related to the emission of hazards, hazardous emissions, handling of hazardous or acutely hazardous emissions.
- d) **No Impact.** The proposed project is located in a residential neighborhood where hazardous materials sites would be unlikely. Regulatory databases, provided by numerous federal, state, and local agencies, included the State Water Resources Control Board's (SWRCB) Geotracker database for leaking underground storage tanks (LUST), and the State of California's Cortese list maintained by the California Department of Toxic Substances Control (DTSC). The Cortese list is a compilation of information from various sources listing potential and confirmed hazardous waste and hazardous substances sites in California. Review of the regulatory databases did not identify any potential hazardous materials site within vicinity of the proposed project site. The proposed project site is not listed on the Cortese list and the closest site listed is Breining Mercedes, approximately 2 miles to the north of the project site (SWQCB, 2014).
- e, f) **No Impact.** The proposed project is not located within two miles of an airport or airstrip. The nearest airport or airstrip is the Fallbrook Community Airpark located at 2155 S. Mission Road, approximately seven miles to the west of the proposed project location.
- g) **No Impact.** The proposed project is located at 4355 Citrus Drive in a rural residential neighborhood. The proposed project would not obstruct or interfere with any established emergency response access and evacuation routes or

interfere with established emergency response plan during construction and operation.

- h) **Less than Significant Impact.** The risk of wildfire exists within the proposed project area and within the vicinity owing to the climate and vegetation communities in southern California and eastern San Diego County. The San Diego General Plan Safety Element (County of San Diego, 2011 identifies the Fallbrook area as moderate to very high fire threat. The specific areas in the vicinity of the proposed project are identified as moderate fire threat. The proposed project facilities would consist of concrete facilities with clay tile roofs and asphalt access roads.

## VIII. Hydrology and Water Quality

<u>Issues (and Supporting Information Sources):</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
<b>8. HYDROLOGY AND WATER QUALITY—</b>				
<b>Would the project:</b>				
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 the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion of 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 that 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 capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 authoritative 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 that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Discussion

- a,f) **Less than Significant Impact.** Project construction activities would require removal of existing vegetation, earthmoving, grading, and compaction. Construction of the facilities involves grading and excavation, asphalt pavement, and trenching for installation of subsurface piping. Construction would also include stockpiling excavated soil at the site, loading, and off-hauling to an offsite location. Such activities would expose previously vegetated soil to wind and rain, which could cause soil erosion. The eroded soil particles, if not properly managed, could

be washed into waterways during the construction phase. Soil erosion could cause stormwater pollution and sedimentation in nearby drainages and streams.

Given that the construction site would be greater than one acre in size, RMWD would be required to apply to the Regional Water Quality Control Board for a National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit). The proposed project's discharge of stormwater is covered under the NPDES program that requires the City to have a municipal stormwater permit. The permit application involves submitting a Notice of Intent form prior to construction, developing and implementing a Storm Water Pollution Prevention Plan (SWPPP) during construction, and submitting a Notice of Termination form at the end of all construction activities.

The objectives of the SWPPP are to identify pollutant sources (such as sediment and chemicals used during construction) that may affect the quality of stormwater discharge and to implement Best Management Practices (BMPs) to reduce pollutants in stormwater discharges. BMPs are individual or combined measures that can be implemented in a practical and effective manner on the project site which, when applied, prevent or minimize the potential release of contaminants into surface waters and groundwater. Soil erosion could cause excess sediment loads in waterways and could affect the water quality within surrounding watershed. The SWPPP would also incorporate control measures to reduce stormwater pollution resulting from the fill material stockpiling.

Construction would also involve use of fuel and other chemicals that, if not managed properly, could get washed off into the stormwater. This could be a potentially significant impact. Implementation of prescriptions in the SWPPP such as spill prevention and control measures that would apply to the use and handling of fuels and other chemicals and serve to reduce or eliminate the occurrence of spills or washing off of chemicals into the waters. Compliance with the specific local and SDRWQCB regulations and implementation of BMPs would ensure that the impact would be less than significant.

All construction shall conform to the requirements of the California Stormwater Quality Association (CASQA) *Stormwater Best Management Practices Handbooks* for Construction Activities and New Development and Redevelopment, the County of San Diego Stormwater Standards, the San Diego County Watershed Protection, Stormwater Management, and Discharge Control Ordinance, San Diego County Grading Ordinance, conditions in the grading permit, and other generally accepted engineering practices for erosion control.

Because the proposed project would increase the impervious surface of the site compared with existing conditions, project design would also be required to incorporate post-construction BMPs to treat stormwater and control discharge of sediment. Because stormwater management would be implemented during

construction and operation of the proposed project, impacts related to violation of water quality standards or waste discharge requirements and degradation on water quality in general would be considered less than significant.

- b) **Less than Significant Impact.** Project construction would include excavation that could intercept subsurface runoff that would otherwise infiltrate to groundwater. Trenching of the site is expected to reach up to 15 feet below ground surface but would not significantly reduce overall infiltration into the groundwater table. Groundwater would not be used during construction or operation and thus, no extraction or depletion of groundwater supplies would occur as a result of the proposed project. The proposed project would increase the area of impervious surface compared with current conditions, and impervious areas would constitute approximately 50 percent of the overall surface area of the proposed project site. However, because of the surrounding open space areas adjacent to the site and within the watershed, construction of the proposed project would not reduce infiltration of surface water to the groundwater table. The impact to groundwater resources would be less than significant.
- c) **Less than Significant Impact.** The proposed project could alter the existing drainage pattern of the site during excavation and grading, and by adding additional impervious area. Under the current conditions, the storm runoff that does not infiltrate is drained from the entire site into streets to the north and south of the site, and into grassland areas to the west. The resulting stormwater flow would not be substantially concentrated, but would be managed and controlled by on-site swales, thereby reducing any occurrence of erosion or siltation. The impact would be less than significant.
- d) **Less than Significant Impact.** As discussed in a) above, the proposed project would alter the existing drainage pattern of the site by developing an existing pervious area into a paved impervious area. As discussed in a) and c) above, the proposed project would increase the storm runoff from the project site. However, the resulting stormwater discharge and flow would be managed and controlled by installing drainage system onsite that would adequately divert flows and reduce concentrate flows that could result in sedimentation and erosion. The system would be designed to manage and discharge large stormwater flow onsite, therefore flooding of the site would not occur and the site would not contribute to flooding off-site.
- e) **Less than Significant Impact.** Please see a) above for discussion of polluted runoff. The stormwater drainage system onsite would be designed to manage and control the storm runoff onsite and would accommodate larger volumes (100-year flood flows). The volume of the storm runoff is not expected to be high as to exceed the existing storm drainage system. The impact would be less than significant.

- g, h) **No Impact.** The project site is not located in a 100-year flood zone, and the proposed project does not involve placement of structures within the 100-year flood zone. Additionally, the proposed project does not involve construction of housing or placement of housing within the 100-year flood zone. Therefore there would be no impact.
  
- i) **No Impact.** The proposed project site is located at elevation 845 NGVD 29 and not located within an inundation zone for a levee or dam.
  
- j) **Less than Significant Impact.** The proposed project is not located within the tsunami zone according to the San Diego County Tsunami Inundation Maps (California Department of Conservation, 2014). If a tsunami were to occur along the northern San Diego coast, the location of the proposed project is such that the wave would dissipate before reaching the site, and impacts would be considered less than significant. Seiches occur in closed body of water such as a large lake or reservoir. The size of Beck Reservoir is such that a seiche is unlikely and would be considered less than significant. Because the project is located on top of a hill, impacts related to mudflow are also unlikely and would be considered less than significant.

## IX. Land Use, Planning, and Policies

<u>Issues (and Supporting Information Sources):</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
<b>9. LAND USE AND LAND USE PLANNING—</b>				
<b>Would the project:</b>				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Discussion

- a) **No Impact.** The location of the Beck Reservoir UV facilities would be located on a former residential lot and would be accessed via existing streets during construction and operation. Operation of the proposed project would occur on lands privately owned by RMWD and would not reduce or restrict access to the surrounding neighborhood or open space areas and no alteration to streets would occur. The proposed project would be constructed on an empty residential lot adjacent to Beck Reservoir and would not physically divide an established community.
- b) **Less than Significant Impact.** The proposed project is located within an area designated as Semi-rural Residential (SR-2). Beck Reservoir is zone as Semi-public/Public Lands. The District would work with San Diego County to either obtain a zoning variance or re-zone the property to ensure compliance with current zoning plans and policies.
- c) **Less than Significant Impact.** The project site is located within the North County Multi-Species Conservation Plan, part of the San Diego County Multi-Species Conservation Program. Development of the UV facilities is in compliance with the plan.

## X. Mineral Resources

<u>Issues (and Supporting Information Sources):</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
<b>10. MINERAL RESOURCES—Would the project:</b>				
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"/>

### Discussion

- a,b) **No Impact.** The proposed project area does not contain significant mineral, oil or gas-producing resource areas according to the California Division of Mines and Geology (Stinson, et al. 1987). Additionally, the San Diego County General Plan does not identify any mineral resources at or near the project site. A search on the California Department of Oil, Gas, and Geothermal Resources Well Finder did not identify geothermal resources on the project site. Therefore, there would be no impacts on mineral resources.



## XI. Noise

<u>Issues (and Supporting Information Sources):</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
<b>11. NOISE—Would the project:</b>				
a) Result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in 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) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in 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 area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Setting

#### **General Noise Information**

Sound is a physical disturbance in a medium, such as air, that is capable of being detected by the human ear. Sound waves in air are caused by variations in pressure above and below the static value of atmospheric pressure. Sound is measured in units of decibels (dB) on a logarithmic scale. The “pitch” (high or low) of the sound is a description of frequency, which is measured in Hertz (Hz). Most common environmental sounds are a composite of frequencies. A normal human ear can usually detect sounds within frequencies from 20 to 20,000 Hz. However, humans are most sensitive to frequencies in the range of 500 to 4,000 Hz.

Certain frequencies are given more “weight” during assessment because human hearing is not equally sensitive to all frequencies of sound. The A-weighted decibel (dBA) scale corresponds to the sensitivity range for human hearing. Noise levels capable of being heard by humans are measured in dBA. A noise level change of 3 dBA or less is barely perceptible to average human hearing. However, a 5 dBA change in noise level is clearly noticeable. A 10 dBA change is perceived as a doubling or halving of noise loudness, while a 20 dBA change is considered a “dramatic change” in loudness. Table XI-1 provides typical instantaneous noise levels of common activities in dBA.

Sound from a source spreads out as it travels away from the source, and the sound pressure level diminishes with distance. Individual sound sources are considered “point sources” when the distance from the source is large compared to the size of the source (e.g., transformer banks, construction equipment, and turbines). Sound from a point source radiates hemispherically, which yields a 6 dB sound level reduction for each doubling of the distance from the source. If the sound source is long in one dimension, the source is considered a “line source,” (i.e., roadways and railroads). Sound from a line source radiates cylindrically, which typically yields a 3 dB sound level reduction for each doubling of the distance from the source.

In addition to distance attenuation, the air absorbs a certain amount of sound energy, and atmospheric effects (wind, temperature, and precipitation), terrain, and vegetation also influence the sound propagation and attenuation over large distances from the source.

An individual’s sound exposure is a value based on a measurement of the noise that the individual experiences over a specified time interval. A sound level is a measurement of noise that occurs during a specified period of time. However, noise impact evaluations under CEQA are based on the project-related increases to the existing community noise levels. A continuous source of noise is rare for long periods of time and is typically not a characteristic of community noise. Rather, community noise refers to outdoor noise in the vicinity of a community.

A community noise environment varies continuously over time with respect to the contributing sources. Within a community, ambient noise levels gradually change throughout a typical day, and the changes can often be correlated to the increase and decrease of transportation noise or to the daytime/nighttime operation of stationary mechanical equipment. The variation in community noise throughout a day is also due to the addition of short-duration single-event noise sources, such as aircraft, sirens, and various natural sources.

**Table XI-1  
 Typical Noise Levels**

<b>Common Outdoor Activities</b>	<b>Noise Level (dBA)</b>	<b>Common Indoor Activities</b>
	110	Rock Concert
Jet Fly-over at 1,000 feet	100	
Gas Lawn Mower at 3 feet	90	
Diesel Truck at 50 feet, at 50 miles per hour (mph)	80	Food Blender or Garbage Disposal at 3 feet
Noisy Urban Area, Daytime Gas Lawn Mower at 100 feet	70	Vacuum Cleaner at 10 feet
Commercial Area Heavy Traffic at 300 feet	60	Normal Speech at 3 feet
Quiet Urban Daytime	50	Large Business Office, Dishwasher in Next Room
Quiet Urban Nighttime	40	Theater, Large Conference

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
		Room (Background)
Quiet Suburban Nighttime	30	Library
Quiet Rural Nighttime	20	Bedroom at Night
	10	Broadcast/Recording Studio (background level)
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: California Department of Transportation 1998

The metrics for evaluating the community noise environment are based on measurements of the noise levels over a period of time. These metrics are used in order to characterize and evaluate the cumulative noise impacts. The most common metrics for evaluating community noise are as follows:

**L<sub>eq</sub>:** The equivalent sound level, or the time-integrated continuous sound level, that represents the same sound energy as the varying sound levels, logarithmically averaged over a specified monitoring period.

**L<sub>max</sub>:** The instantaneous greatest noise level measured on a sound level meter during a designated time interval.

**L<sub>min</sub>:** The instantaneous lowest noise level measured on a sound level meter during a designated time interval.

**CNEL:** The Community Noise Equivalent Level that represents a 24-hour A-weighted sound level average conducted from midnight to midnight, where sound levels during the evening hours of 7:00 p.m. to 10:00 p.m. have an added 5 dB weighting, and nighttime hours of 10:00 p.m. to 7:00 a.m. have an added 10 dB weighting.

These noise levels are typically evaluated at sensitive receptor locations to determine compliance with noise standards. Examples of sensitive receptors include residential land uses, schools, hospitals, and parks.

In addition to sound, construction activities also have the potential to create ground vibrations, depending on the kind of equipment and operations involved, and the distances between the construction activities and the nearest sensitive receptors. The effects of groundborne vibrations generated from construction activities are typically imperceptible to most people located outside the immediate proximity of the construction activities. However, high-magnitude vibrations can result in damage to nearby structures within the immediate vicinity of the source.

### Existing Ambient Noise Level

The proposed project would be located in the unincorporated area of Fallbrook, within the County of San Diego. The proposed project is located adjacent to a single family residential community. Existing noise sources identified in proximity to these noise sensitive residential receptors include community noise comprised of roadway vehicle noise, aircraft overflight noise, and the operation of agricultural equipment.

To document the existing ambient noise conditions within the vicinity of the proposed project site, a mechanized environmental noise monitor was placed along the southeastern property line of the proposed project. The 24-hour noise monitor was programmed to record continuously throughout a typical business day on Tuesday, March 4, 2014. The results of this monitoring are shown in Table XI-2 below; and the noise monitoring location is shown on Figure 5.

**Table XI-2  
 Measured Existing 1-hour Noise Levels on March 4, 2014**

<b>Military Time</b>	<b>Measured 1 hour Noise Level (dBA L<sub>eq</sub>)</b>
0:00:00	30.7
1:00:00	27.4
2:00:00	27.1
3:00:00	27.4
4:00:00	32.1
5:00:00	29.3
6:00:00	35.3
7:00:00	43.4
8:00:00	41.8
9:00:00	41.6
10:00:00	44.8
11:00:00	41.7
12:00:00	50.1
13:00:00	48.7
14:00:00	50.9
15:00:00	59.4
16:00:00	52.7
17:00:00	48.2
18:00:00	46.6
19:00:00	42.0

<b>Military Time</b>	<b>Measured 1 hour Noise Level (dBA L<sub>eq</sub>)</b>
20:00:00	37.7
21:00:00	42.6
22:00:00	49.9
23:00:00	32.6
Daytime L <sub>eq</sub>	50.3
Nighttime L <sub>eq</sub>	40.8

The noise monitoring data provided in Table XI-2 show that the ambient hourly noise levels measured at the project site range from 27.4 to 59.4 dBA Leq, resulting in a daytime L<sub>eq</sub> of 50.3 dBA and a nighttime L<sub>eq</sub> of 40.8 dBA.

While measuring the existing site characterization noise, start and end times were recorded as was significant and background noise in the area, such as motor vehicle traffic traveling along nearby adjacent roadways. The 24-hour sound level measurement ran from midnight to midnight, and data was integrated and logged every 30 minutes. Other relevant field data were gathered at the site during the noise survey, including distances to receptors, angles-of-view, slopes, and site elevations. This information was subsequently cross-checked with available maps and records. The sound level meter used during the field exercise was field-calibrated prior to and following the noise measurements to ensure accuracy. All sound level measurements conducted and presented in this report are in accordance with, and were made using a sound level meter that conforms to the American National Standards Institute (ANSI S1.4-1983 - R2006) specifications for sound level meters. All instruments are maintained with the National Bureau of Standards traceable calibrations.

To further document the existing daytime ambient noise levels at several potential noise sensitive receptor locations, a series of one-hour equivalent sound level measurements (Leq, A-weighted) was conducted during the daytime hours on Monday March 3, 2014, and Wednesday March 5, 2014, at a total of four locations along the boundaries of the project site (Figure 6). The results of this monitoring are shown in Table XI-3 below.

**Table XI-3  
 Measured Existing 1-hour Noise Levels at Sensitive Receptors on March 3 and 5, 2014**

<b>Noise Measurement Locations</b>	<b>Location Description</b>	<b>Measured 1-hour Noise Level (dBA L<sub>eq</sub>)</b>
1	Southern Boundary Line	47.7
2	Southwestern Boundary Line	43.6
3	Northwestern Boundary Line	40.8
4	Northern Boundary Line	42.2

The noise measurement data provided in Table XI-3 show that the independent noise levels measured at the four property boundary noise sensitive receptor locations range from 40.8 to 47.7 dBA  $L_{eq}$ .



Receptor	Receptor Location
1	Long-term Noise Monitor Location
2	Southern Boundary Line (Short-Term Measurement Location)
3	Southwestern Boundary Line (Short-Term Measurement Location)
4	Northwestern Boundary Line (Short-Term Measurement Location)
5	Northern Boundary Line(Short-Term Measurement Location)

**Legend**

- Project Boundary
- ⊗ Noise Measurement Location



Beck Reservoir UV Facility Project  
Fallbrook, California  
Draft Initial Study

Noise Measurement Locations



Receptor	Receptor Location
1	Long-term Noise Monitor Location
2	Southern Boundary Line (Short-Term Measurement Location)
3	Southwestern Boundary Line (Short-Term Measurement Location)
4	Northwestern Boundary Line (Short-Term Measurement Location)
5	Northern Boundary Line (Short-Term Measurement Location)
6	Western Residential Property Line
7	Southern Residential Property Line
8	Southeastern Residential Property Line

**Legend**

- Project Boundary
- ⊗ Noise Measurement Location
- ⊗ Sensitive Receptor Location



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Sensitive Noise Receptor Locations



## Approach to Analysis

The noise impact assessment of the proposed project's construction and operation activities was accomplished using CadnaA (Computer Aided Noise Abatement), a computer program for predicting noise impacts, and the above listed CEQA criteria.

The vibration assessment of the proposed project construction and operation activities was accomplished using the Federal Transit Authority (FTA) vibration impact assessment guidelines.

## Discussion

### a) Less than Significant with Mitigation:

Construction Impacts: The proposed project related construction activities would require a variety of equipment. Typical maximum noise levels for construction equipment at 50 feet from the source are shown in Table XI-5, below.

**Table XI-5  
Typical Construction Equipment Noise Levels**

<b>Equipment</b>	<b>Noise Level (dBA) at 50 feet</b>
Backhoe	80
Concrete mixer	85
Pump truck	82
Crane, Mobile	85
Dozer	85
Excavator	85
Generator	82
Grader	85
Man lift	85
Loader	80
Paver	85
Roller	85
Scraper	85
Trucks	80-84

Source: Federal Highway Administration (FHWA) 2009

The noise prediction calculations of the construction equipment assume that the construction activities would operate for 12 hours per day. The calculated noise impacts range from 40.6 dBA at the northern boundary line to 91.0 dBA at the long-term noise monitoring location.

The calculated noise impacts at the sensitive receptor locations for each phase are provided in Table XI-6.

**Table XI-6  
 Beck Reservoir UV Facilities Project Construction Noise Impacts**

Receptor	Receptor Location	Construction Operations Noise Impacts (dBA Leq)						
		Site Preparation	Excavation	Grading	Building Construction	Architectural Coating	Final Grading	Paving
1	Long-term Noise Monitoring Location	87.0	87.1	86.9	86.7	67.3	91.0	85.8
2	Southern Boundary Line (Short-Term Measurement Location)	81.4	86.1	81.7	81.0	66.5	80.3	84.5
3	Southwestern Boundary Line (Short-Term Measurement Location)	83.5	83.9	85.9	82.0	73.4	85.1	84.9
4	Northwestern Boundary Line (Short-Term Measurement Location)	66.9	67.8	66.4	66.2	53.3	69.4	68.7
5	Northern Boundary Line (Short-Term Measurement Location)	53.2	53.3	53.1	52.3	40.6	56.9	55.5
6	Western Residential Property Line	79.7	78.9	80.5	77.3	68.0	79.8	80.9
7	Southern Residential Property Line	80.7	82.4	80.6	80.1	66.8	79.6	82.3
8	Southeastern Residential Property Line	73.3	73.7	73.3	73.1	59.9	72.9	75.4

The proposed project's construction operations would occur between the daytime hours of 7:00 a.m. to 7:00 p.m. The noise model calculations show that the noise generated by the project's construction activities would exceed the County of San Diego's construction noise threshold of 75 dBA at the southern and eastern boundary lines. Therefore, these noise impacts are considered to be significant.

Mitigation measures should be implemented to reduce the noise impacts to below the County of San Diego's noise threshold limit of 75 dBA. A temporary sound wall should be placed on the southern and western project boundary lines adjacent to residences. The temporary wall should be 15 feet in height and be placed between the construction activities and the residential structures. With the placement of an approved temporary sound wall design, the mitigated noise impacts from the project activities would be reduced to less than significant.

### Operation Impacts

The anticipated on-site operational noise sources for the project would primarily consist of a condenser unit, a back-up generator, and pumps. It is anticipated that the project equipment would operate 24 hours a day. The proposed project noise sources are summarized in Table XI-7

**Table XI-7  
 Project Generated Mechanical Noise and Evaluation Parameters**

<b>Quantity</b>	<b>Equipment Description</b>	<b>Frequency</b>	<b>Related Sound Level Distance (ft)</b>	<b>Noise Level (dBA)</b>
1	Condenser Unit	100%	3	48.0
1	Back-up Generator	25%	23	75.0
4	Mixing Pump	100%	3	72.0
2	Submersible Pump	100%	3	85.0

Computer model calculations indicate that the worst-case noise impacts from the unmitigated operations associated with the project range from 28.4 dBA Leq at the northern boundary line to 51.7 dBA Leq at the southern boundary line. The calculated noise impacts at the sensitive residential receptor locations are provided in Table XI-8.

**Table XI-8  
 Beck Reservoir UV Facilities Unmitigated Operational Noise Impacts**

<b>Receptor</b>	<b>Receptor Location</b>	<b>Noise Threshold Limit (dBA)</b>	<b>Unmitigated Noise Level (dBA Leq)</b>
1	Long-term Noise Monitor Location	----	41.4
2	Southern Boundary Line (Short-Term Measurement Location)	45.0	39.9
3	Southwestern Boundary Line (Short-Term Measurement)	45.0	52
4	Northwestern Boundary Line (Short-Term Measurement)	45.0	42.5
5	Northern Boundary Line (Short-Term Measurement Location)	45.0	28.0
6	Western Residential Property Line	45.0	44.7
7	Southern Residential Property Line	45.0	40.1
8	Southeastern Residential Property Line	45.0	37.2

The noise impacts from the unmitigated operations of the proposed project would not exceed the County of San Diego’s most restrictive nighttime noise threshold limits of 45 dBA Leq at the sensitive residential receptors. Noise receptor location 3 located inside the southwestern boundary line is shown to exceed the County’s threshold limit of 45 dBA Leq. However, the noise at this boundary line is attenuated due to distance to below the threshold at the residence west of the project site. Therefore, the noise impacts would be considered less than significant.

**Mitigation Measures**

**Mitigation Measures XI-1 Temporary Soundwall:** Temporary sound barriers would be deployed along the southern and western boundary lines adjacent to residential structures. The wall should be placed at a height of 15 feet. The final location and length of the wall should be determined in the final design phase of the project.

**Mitigation Measure XI-2 Equipment Noise Control:** Equipment and trucks used for project construction shall employ the best available noise control techniques to the extent feasible.

**Mitigation Measures XI-3 Location of Stationary Noise Sources:** Stationary noise sources shall be located as far from adjacent noise sensitive receptors as reasonably possible and shall be enclosed if feasible.

Implementation of the mitigation measures above would reduce impacts related to generation of noise during construction would be less than significant

**b) Less than Significant Impact.**

**Construction Impacts:** The construction of the proposed project would include the use of heavy equipment that would generate ground-borne vibrations. Possible sources of vibration may include pile driving, excavators, dump trucks, backhoes, and other grading and earth moving equipment.

According to the Federal Transit Administration (FTA) guidelines, a vibration level of 65 VdB is the threshold of perceptibility for humans. For a significant impact to occur, vibration levels must exceed 80 VdB during infrequent events (FTA 1995). The vibration calculations are based on the FTA published vibration levels provided in Table XI-9.

**Table XI-9  
Vibration Source Levels for Typical Construction Equipment**

<b>Equipment</b>	<b>Vibration Level (VdB) at 25 feet</b>
Large bulldozer	87
Caisson drilling	87
Loaded trucks	86
Jackhammer	79
Small bulldozer	58

Source: FTA 2011

The construction activities associated with the proposed project may occur as close as 50 feet from the southern residential structure, 130 feet from the eastern residential structure, and 330 feet to the northern residential structure. Calculations show that the distance to each residential receptor would attenuate the vibration impact levels to approximately 78.0 VdB at the southern residential structure, 65.5 VdB from the eastern residential structure, and 53.4 VdB at the northern residential structure. This analysis shows that vibration levels at all identified sensitive receptors would be below the maximum of 80 VdB. Therefore, these impacts are considered less than significant.

Operational Impacts: The project's proposed operational equipment is not anticipated to generate perceptible vibrations. The generator and pumps could generate vibrations, but these vibration levels would be attenuated to below the threshold of perceptions at the project's boundary lines. Therefore, these impacts are considered less than significant.

**c) Less than Significant Impact.**

**Construction Impacts:** Construction is a temporary condition, and as a result, would not involve permanent increases in ambient noise levels. Therefore, there would be no impact.

Operation Impacts: To determine the potential impacts from the proposed project to the existing residential community, the existing noise levels measured at each sensitive receptor

location was compared to the future modeled noise levels during the proposed project operations. This comparison is summarized below in Table XI-10.

**Table XI-10  
 Beck Reservoir UV Facilities Project Increase to the Existing Ambient Noise Levels**

Receptor	Receptor Location	Measured Daytime Measured Noise Level (dBA Leq)	Calculated Unmitigated Noise Level (dBA Leq)	Combined Noise Level (dBA Leq)	Increase (dB)
1	Southern Boundary Line (Short-Term Measurement Location)	47.7	39.9	48.4	0.7
2	Southwestern Boundary Line (Short-Term Measurement Location)	43.6	52.0	52.6	9.0
3	Northwestern Boundary Line (Short-Term Measurement Location)	40.8	42.5	44.7	3.9
4	Northern Boundary Line (Short-Term Measurement Location)	42.2	28.0	42.4	0.2

The results of the comparison show that the increase to the existing noise levels from the proposed project would range from 0.2 dB at the northern boundary line to 9.0 dB at the southwestern boundary line. The noise level increases at the southwestern and northwestern boundary lines would be greater than 3 decibels. However, the properties adjacent to these receptors contain large lots with residential structures located approximately 120 feet from the project boundary lines. Due to the attenuation of noise due to distance the noise level increases at the western and northwestern residential structures would be less than 3 decibels. Therefore, the proposed project would not result in a significant increase to the existing ambient noise levels near residential structures.

**d) Less than Significant Impact**

**Construction Impacts:** Construction activities at the project would occur on weekdays and only during the daytime period. The existing ambient measured noise levels range from 40.8 dBA Leq to 47.7 dBA Leq. The modeled construction noise impacts range from 40.6 dBA at the northern boundary line to 91.0 dBA at the long-term noise monitoring location. The noise levels from the construction activities would temporarily increase the existing ambient noise levels by 3 decibels or more. However, the construction activities would be conducted during daytime hours and would not increase the existing nighttime ambient noise levels when people are sleeping. Due to the daytime construction activities and temporary nature of construction activities, the increase in ambient noise levels at the nearest residence is considered less than significant.

## Operation Impacts

Noise impacts associated with the project would range from 28.0 dBA Leq at the northern boundary line to 52.0 dBA Leq at the southern boundary line. The existing daytime ambient measured noise levels at the project boundary lines range from 40.8 dBA Leq to 47.7 dBA Leq. The noise impacts from the project would result in an increase to the existing ambient noise levels ranging from 0.2 dB at the northern boundary line to 9.0 dB at the southwestern boundary line. The noise level increases at the southwestern and northwestern boundary lines would be greater than 3 decibels. However, the properties adjacent to these receptors contain large lots with residential structures located approximately 120 feet from the project boundary lines. Due to the attenuation of noise due to distance the noise level increases at the western and northwestern residential structures would be less than 3 decibels. Therefore, the proposed Project would not result in a significant increase to the existing ambient noise levels near residential structures.

- e,f) No Impact.** The project is not located within an airport land use plan, nor is it within two miles of a public airport or public use airport. Therefore, construction of the project would not expose workers to excessive noise levels attributable to a public airport or public use airport, and there would be no impact.

There are no private airstrips located within the vicinity of the project. Therefore, the project would not expose workers to excessive noise levels attributable to a private airstrip, and there would be no impact.

## XII. Population and Housing

<u>Issues (and Supporting Information Sources):</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
<b>12. POPULATION AND HOUSING—</b>				
<b>Would the project:</b>				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing units, 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"/>

### Discussion

a,b,c) **No Impact.** Construction and operation of the Beck Reservoir UV Facilities project would not affect the location, distribution, density or population growth rate in the project area. The UV facility is being constructed to meet USEPA Long Term 2 Enhanced Surface Water Treatment Rule regulations to bring Beck Reservoir into compliance. The reservoir is used in emergency and high demand situations and would not result in increased population in the Fallbrook area.

The proposed project site would be located on a currently vacant residential lot. The former residence was destroyed in a fire and no residence currently exists on the lot. Therefore, construction and operation of the proposed UV disinfection facility would not result in the displacement of an existing housing units or people.



### XIII. Public Services

<u>Issues (and Supporting Information Sources):</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
<b>13. PUBLIC SERVICES— Would the project:</b>				
a) Result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
i) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Setting**

The proposed project area is located within a rural residential neighborhood. Fire protection is provided by the North County Fire Protection District. The District currently has six fire stations, five of which are staffed with fulltime personnel. The closest station is Station 4 located at 4375 Pala Mesa Road, approximately 2.3 miles to the south of the proposed project site. Station 4 maintains one captain, one engineer, two firefighter/paramedics, and one reserve firefighter. Police protection is provided by the San Diego County Sheriff Department Fallbrook Substation. The substation is located at 388 East Alvarado Street approximately 6.2 miles from the proposed project site.

The Fallbrook Union Elementary School District serves kindergarten through eighth grade with five schools. The Fallbrook Union High School District serves grades nine through 12 with three schools within the District.

Parks within the vicinity of the proposed project area includes Live Oak Park located at 2746 Reche Road.

## **Discussion**

- a.i) **Less than Significant Impact.** The proposed project would be constructed where there is currently no structure or resources that would require fire protection. It is not expected that the UV facility would increase demand for fire protection services significantly above existing levels for the project site.
- a.ii) **Less than Significant Impact.** The proposed project would be constructed where there are currently no structures or resources that would require police protection. It is not expected that the UV facilities would increase demand for police services significantly above existing levels for the project site.
- a.iii) **No Impact.** Construction and operation of the Beck Reservoir UV Facilities would not result in residential housing or an increase in population and would therefore not result in any adverse impacts to local schools.
- a.iv) **No Impact.** Construction and operation of the Beck Reservoir UV Facilities would not result in closure or displacement of local parks.
- a.v) **No Impact.** Construction and operation would not require any additional services such as maintenance from County staff. RMWD would maintain the property and therefore the proposed project would have no impacts on additional local public facilities.

## XIV. Recreation

<u>Issues (and Supporting Information Sources):</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
<b>14. RECREATION—Would the project:</b>				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities 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 that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Setting

Live Oak Park is the only park located within the vicinity of the proposed project. Live Oak Park is approximately 27 acres and includes reserveable picnic tables, a basketball court, soccer fields, volleyball court, two playgrounds, and three softball fields.

### Discussion

- a,b) **No Impact.** Construction and operation of the proposed project would not increase local population that could result in increased use of local parks and recreational facilities resulting in physical deterioration to those facilities. The proposed project does not involve construction of recreation facilities.

## XV. Transportation and Traffic

<u>Issues (and Supporting Information Sources):</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
<b>15. TRANSPORTATION AND TRAFFIC—</b>				
<b>Would the project:</b>				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity 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 checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks?	<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 capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., conflict with policies promoting bus turnouts, bicycle racks, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Setting

Roads within the proposed project area consist mainly of local and collector roads which provide direct access to homes and businesses in the local area. Local roads typically carry low vehicular movement.

Collector roads are roads that provide movement between local and collector roads and carries low-to-moderate vehicular traffic and low-to-heavy pedestrian traffic. Roads within the immediate vicinity of the proposed project are considered residential roads. Residential roads are intended to collect traffic from adjacent residential areas. The primary purpose of these roads is to provide residential access and is only designed to accommodate local traffic.

Levels of service (LOS) are a means of measuring and evaluating traffic congestion and describe the operation conditions of a road. There are six LOS categories designated from A to F with A representing the best conditions and F representing the worst operational conditions. LOS is typically not applied to residential roads.

Beyond the immediate proposed project area, Pala Mesa Road and Wilt Road would be considered collector roads which direct traffic away from residential roads to other collector roads and highways including Old Highway 395 and Interstate 5. The LOS of Pala Mesa Road is C or D, depending on the segment of the road. LOS C indicates moderate delays

especially at peak traffic times. LOS D represents potentially significant delays where the road is at or greater than capacity.

## **Discussion**

- a,b) **Less than Significant Impact:** During construction, a minor increase in vehicle traffic would occur on local collector roads and local streets. Contractor vehicles and equipment, including haul trucks would access the site on a daily basis Monday through Friday. Approximately 5-10 truck trips per day would occur during the construction period of 18 months. A temporary increase in traffic volumes on local streets would occur during the construction period but would be considered temporary.

The project construction would result in short-term and intermittent construction traffic impacts associated with the delivery of materials and equipment, removal of debris, hauling of fill material to the site, and parking for construction workers. Any construction traffic occurring on weekdays between 7:00 a.m. and 9:00 a.m., or between 4:00 p.m. and 6:00 p.m., would coincide with peak-hour traffic and could impede traffic flow at collector roads adjacent to the project area. Vehicle access to the proposed project site during construction would be via Interstate 5 and Pala Mesa Drive, Wilt Road, and Citrus Drive.

Approximately five to ten daily one-way truck trips would occur with the delivery of materials and the off-hauling of materials and debris. Truck traffic on Wilt Road and Pala Mesa Drive would not result in an increase in traffic volume or a reduction of LOS. Traffic volume on local roads in the vicinity of the proposed project may increase slightly during construction, but this increase would be temporary and would not be beyond design capacity of local roads and would be considered a less than significant impact.

- c) **No Impact.** Construction and operation of the Beck Reservoir UV facilities would not change air traffic patterns, increase air traffic levels, or result in a change in location that would result in substantial safety risks.
- d) **No Impact.** Construction and operation of the proposed project would not result in an increase in hazards or changes in design features to local streets that would result in hazards or incompatible uses. The proposed project would have two access roads that would be accessible directly from existing local streets. The proposed project does not include alterations to local streets.
- e) **No Impact.** Construction and operation of the proposed project would not change the current emergency access routes. The proposed project would not include a change in roads or access to the proposed project site.
- f) **No Impact.** Construction and operation of the proposed project would provide adequate parking within the Beck Reservoir UV Facility property. During

construction, contractor parking would be provided on site for up to 10 vehicles. During operation, periodic inspection by RMWD personnel would occur requiring parking.

- g) **No Impact.** Construction and operation of the proposed project would not result in any change to alternative transportation or conflict with any plans or policies which support alternative transportation.

## XVI. Utilities and Service Systems

<u>Issues (and Supporting Information Sources):</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
<b>16. UTILITIES AND SERVICE SYSTEMS—Would the project:</b>				
a) Conflict with 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 type="checkbox"/>	<input checked="" 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) Require new or expanded water supply resources or entitlements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider that would serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Discussion

a,b,e) **No Impact.** The proposed project entails construction and operation of a UV facility to treat potable water at Beck Reservoir. No wastewater facilities, including toilets, would be constructed because there is no existing sewer connection. The proposed project would not produce wastewater or require the expansion of wastewater facilities.

During construction portable restrooms would be onsite but would be off hauled by the contractor for treatment and disposal. Short term increase in wastewater generation would not increase the volume of wastewater in the system, nor would it result in a decrease in quality of flows into the Fallbrook Public Utility District's wastewater treatment plant. Therefore, the proposed project would be in compliance with wastewater treatment requirements issued by the San Diego RWQCB, the agency that issues permits for discharge from the plant.

The proposed project would not require additional water supply or increase wastewater generation; therefore, no new water or wastewater treatment facilities are required to support the proposed project. Water required for dust control measures would be trucked to construction sites by the contractor.

- c) **Less than Significant Impact.** The proposed project would construct structures that would result in a negligible increase in stormwater runoff at the project location. However, the proposed project facilities would be designed and constructed to conform with current stormwater regulations. Increase in stormwater runoff would be considered negligible and would not require the construction of new or expansion of existing stormwater facilities. Please see Section Hydrology and Water Quality for details on the proposed project's stormwater management during construction and operation.
- d) **No Impact.** The proposed project entails the UV disinfection of emergency water supply provided by Beck Reservoir. The Program would not require new water supplies, water resources, or entitlements. Therefore, there would be no impact on waters supplies and entitlements.
- f) **Less than Significant Impact.** During construction, the proposed project would result in materials being deposited at the local landfill, most likely one of the U.S. Marine Corps Base Camp Pendleton Landfills. Site preparation includes grubbing and grading and trench installation of subsurface piping would require excavation and off-hauling of excess soil. Approximately 9,700 cubic yards of materials expected to be removed from the site include vegetation and soil, and concrete. Because the site is currently undeveloped, the amount of materials such as concrete, wood, metal, or other building materials is expected to be negligible. It anticipated that much of this material removed from the proposed project site can be recycled or repurposed and would therefore not significantly reduce capacity of local landfill. Vegetation and soil may be used at local landfills as daily cover and would therefore not result in decrease in capacity at the local landfill. Because the amount of material is expected to be negligible and much of the material is anticipated to be recycled or used for alternative daily cover, materials deposited at local landfills would not significantly reduce the capacity of such landfills and impacts related to local landfill capacity is considered less than significant.
- g) **Less than Significant Impact.** Construction of the proposed project is anticipated to produce minimal solid waste that would require removal and deposition in a local landfill permitted to accept such waste. Solid waste removed from the proposed project site would not be considered toxic waste or require any specific handling regulations. All solid waste materials would be eligible for disposal at a local landfill and would therefore be in compliance with local, state, and federal solid waste regulations.



## XVII. Greenhouse Gases

<u>Issues (and Supporting Information Sources):</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
<b>17. Greenhouse Gases—Would the project:</b>				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>

### Discussion

- a) **Less than Significant Impact:** San Diego County (County) has prepared *Guidelines for Determining Significance and Report Format and Content Requirements* for addressing climate change in CEQA documents. The County developed screening criteria for projects that produce GHG emissions of less than 2,500 metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e) per year. This screening criteria is used to assess the project’s impacts.

GHG emission sources include construction equipment and electricity used to power the project. The project GHG emissions were calculated using CalEEMod Version 2013.2.2. The construction emissions would be approximately 305 MT CO<sub>2</sub>e per year and operations emissions would be approximately 706 MT CO<sub>2</sub>e per year. Both values are below the screening threshold of 2,500 MT CO<sub>2</sub>e. Therefore, the project would be less than significant.

- b) **Less than Significant Impact:** California Assembly Bill No. 32 (AB-32), also known as the Global Warming Solutions Act, was passed on August 31, 2006. AB 32 requires the reduction of statewide GHG emissions to 1990 levels by 2020. The required reductions equate to approximately 30 percent reductions from expected 2020 “business as usual” GHG emissions.

The County has adopted a Climate Action Plan (CAP) that includes GHG reduction measures that, if fully implemented, would achieve an emission reduction target that is consistent with the state-mandated reduction target embodied in AB 32.

The project would not conflict with the applicable plans, programs, policies and regulations discussed above and would therefore be less than significant.

## XVIII. Mandatory Findings of Significance

<u>Issues (and Supporting Information Sources):</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
<b>18. MANDATORY FINDINGS OF SIGNIFICANCE—</b>				
<b>Would the project:</b>				
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 would be 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 that would cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>


### Discussion

- a) **Less than Significant Impact.** Because there is limited habitat available at the site, impacts of the proposed project on the biological environment would not result in the substantial reduction to fish or wildlife species habitat or cause fish species to drop below self-sustaining levels. Additionally, the proposed project area does not provide habitat and would therefore not eliminate habitat for plant or animal species or restrict the range of special status species. Because the proposed project is located on a former residential lot, there is limited potential for resources of California history or prehistory to occur. Implementation of the proposed project would not eliminate any potential historical resources.
- b) **Less than Significant Impact.** The impacts of the proposed project, when combined with planned and approved but not yet built projects within the vicinity of the project site, would not result in significantly considerable cumulative effects. The approved but not yet built projects would be required to mitigate any potentially significant impact to a less than significant level, similar to the proposed project. Because the proposed project would not result in potential significant impacts, it would not result in cumulatively considerable impacts when combined with other past, current, or future projects.
- c) **Less than Significant Impact.** The project would not result in any potential environmental effects that would cause substantial adverse effects on human, upon implementation of the identified mitigation measures. The storage or

handling of any hazardous substances would be conducted according to manufacturer's specifications and all laws and regulations.

On the basis of this initial study:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental documentation is required.

  
\_\_\_\_\_  
Signature  
Sherry Rebueno, P.E.  
\_\_\_\_\_  
Printed Name

7/31/14  
\_\_\_\_\_  
Date  
Rainbow MWD  
\_\_\_\_\_  
For

## A. Report Preparers and References

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## B. References

Beranek, Leo L. 1988. Noise and Vibration Control, Revised Edition. INCE.

California Department of Conservation, Division of Land Resource Protection, 2014. Farmland Mapping and Monitoring Program: Solano County Important Farmland. Available online at: <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2014/>, (accessed March 2014).

California Department of Fish and Wildlife. 2014. California Natural Diversity Database (CNDDDB), RareFind4, California Department of Fish and Wildlife Sacramento. Accessed March 2014.

California Department of Toxic Substances Control, EnviroStor program, 2007. Available online at:  
[http://www.envirostor.dtsc.ca.gov/public/profile\\_report.asp?global\\_id=70000104](http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=70000104)  
(accessed March 2014).

California Department of Transportation (Caltrans), California Scenic Highway Program, 2007 Available online at:  
[http://www.dot.ca.gov/hq/LandArch/scenic\\_highways/index.htm](http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm)

(accessed March 2014).

California Native Plant Society (CNPS). 2014. Inventory of rare and endangered plants of California (online edition). California Native Plant Society, Sacramento.

<http://www.cnps.org/inventory> Accessed March 2014.

California Department of Forestry and Fire Protection (Cal Fire) Wildland Hazards maps. Available online at:  
[http://www.fire.ca.gov/fire\\_prevention/fire\\_prevention\\_wildland\\_zones\\_maps.php](http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones_maps.php)  
Accessed March 2014.

California Department of Oil, Gas and Geothermal Resources Well Finder (2014)  
<http://maps.conservation.ca.gov/doggr/index.html>. Accessed March 30, 2014.

California Department of Toxic Substances Control (DTSC), 2014 *Hazardous Waste and Substances Site List (Cortese List)*,  
[http://www.dtsc.ca.gov/database/Calsites/Cortese\\_List.cfm](http://www.dtsc.ca.gov/database/Calsites/Cortese_List.cfm), accessed February 21, 2014.

County of San Diego Air Pollution Control District's Rules and Regulations, reviewed March 19, 2014. ([http://www.sdapcd.org/rules/current\\_rules.html](http://www.sdapcd.org/rules/current_rules.html))

County of San Diego. 2011. San Diego County General Plan. Available online at: <http://www.sdcountry.ca.gov/pds/generalplan.html>. Accessed March 2014

County of San Diego Land Use and Environment Group. 2011. Guidelines for Determining Significance and Report Format and Content Requirements Transportation and Traffic.

Federal Transit Administration (FTA). 2006. Transit Noise and Vibration Impact Assessment.

Guidelines for Determining Significance and Report Format and Content Requirements. 2013. County of San Diego. Department of Public Works. November 7.

Harris, Cyril M. 1998. Handbook of Acoustical Measurements and Noise Control, 3rd Edition. Acoustical Society of America.

International Standard (ISO) 9613.1996. Acoustics – Attenuation of Sound During Propagation Outdoors, Part 2: General Method of Calculation.

Raichel, Daniel R. 2000. The Science and Applications of Acoustics.

San Diego County. 2013. Code of Regulatory Ordinances, *Title 3, Division 6, Chapter 4 – Noise Abatement and Control*.

State Water Resources Control Board (SWRCB). 2014. *Geotracker*, <http://www.geotracker.swrcb.ca.gov>, accessed February 21, 2014.

Stinson, M.C., Manson, M.W., and Plappert, J.J., Mineral Land Classification: Aggregate

U.S. Department of Transportation Federal Highway Administration (FHWA). 2009. Section 9.0 Construction Equipment Noise Levels and Ranges.