

Draft Initial Study – Mitigated Negative Declaration

prepared by

Santa Clarita Valley Water Agency

26521 Summit Circle

Santa Clarita, California 91350

Contact: Rick Vasilopulos, Water Resources Planner

prepared with the assistance of

Rincon Consultants, Inc.

180 North Ashwood Avenue Ventura, California 93003

April 2022



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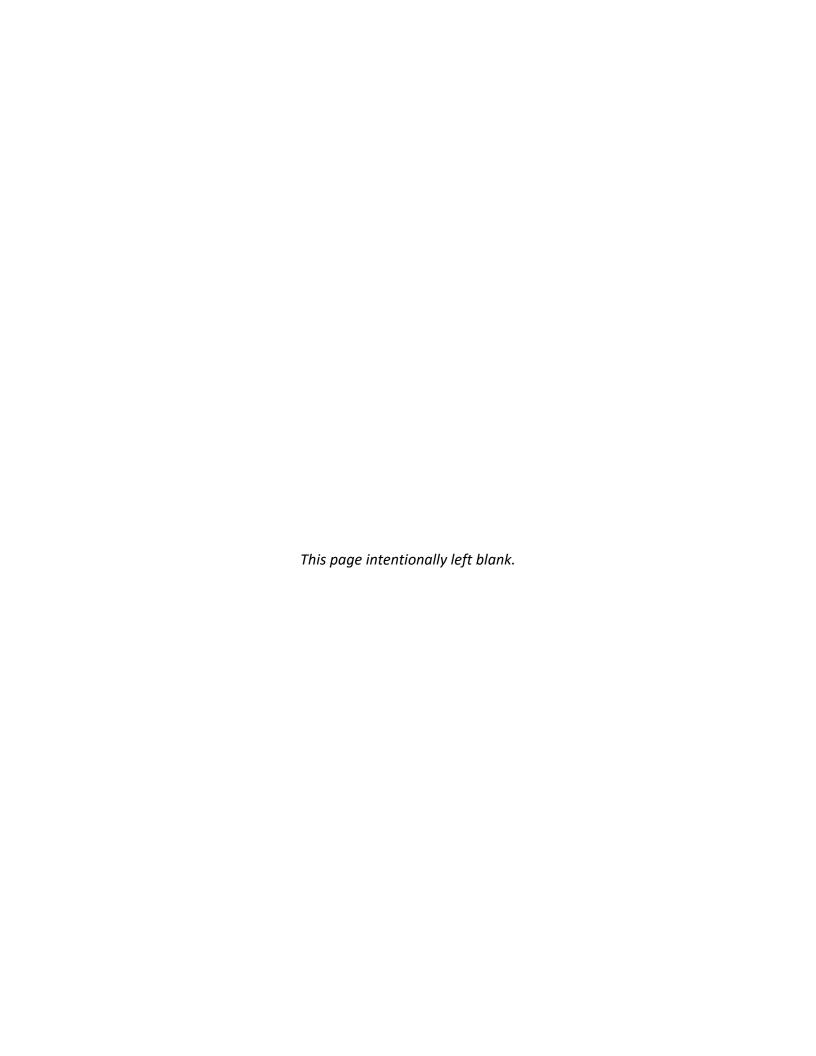


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Santa Clarita Valley Water Agency Well 205 Groundwater Treatment Project

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Appendix A Air Quality and Greenhouse Gas Modeling Results

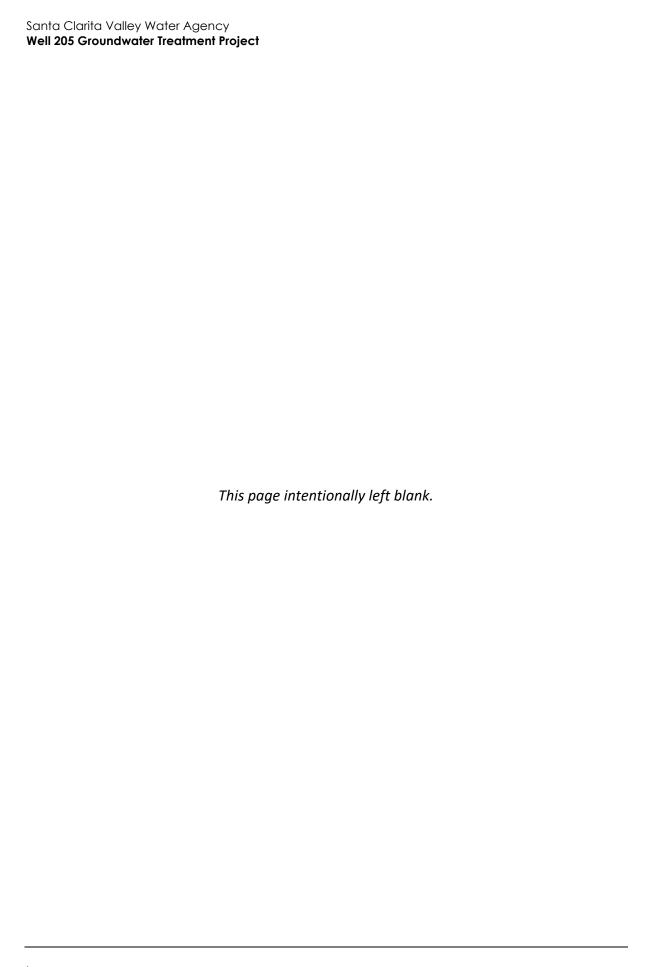
Appendix B Biological Resources Assessment and Coastal California Gnatcatcher Focused Survey

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Appendix C Cultural Resources Assessment
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Appendix E Noise Data and Analyses

Appendix F AB 52 Results



Initial Study

Project Title

Well 205 Groundwater Treatment Project

2. Lead Agency Name and Address

Santa Clarita Valley Water Agency 26521 Summit Circle Santa Clarita, California 91350

Contact Person and Contact Information

Rick Vasilopulos, Water Resources Planner (661) 705-7912 – rvasilopulos@scvwa.org

Project Location

The project site is located on Assessor's Parcel Number 2861-066-002, which is an approximately 1.75-acre parcel on Valencia Boulevard near McBean Parkway in Santa Clarita, California. The project site currently contains Santa Clarita Valley Water Agency's (SCV Water) Well 205, which is enclosed in an approximately 815-square-foot building, and its appurtenant facilities. The project site has a metal gate and fencing along the eastern boundary as well as a storm drain inlet near the site's eastern border. An unpaved pathway runs through the project site and connects the sidewalk along Valencia Boulevard to a trail network through the open space northwest of the project site. Access is provided via a driveway that leads into the adjacent McBean Regional Transit Center Park and Ride parking lot. See Figure 1 for a map of the regional project location and Figure 2 for a map of the project site location in a local context. Figure 3 shows site photographs of the existing site and facilities.

5. Project Sponsor's Name and Address

Santa Clarita Valley Water Agency 26521 Summit Circle Santa Clarita, California 91350

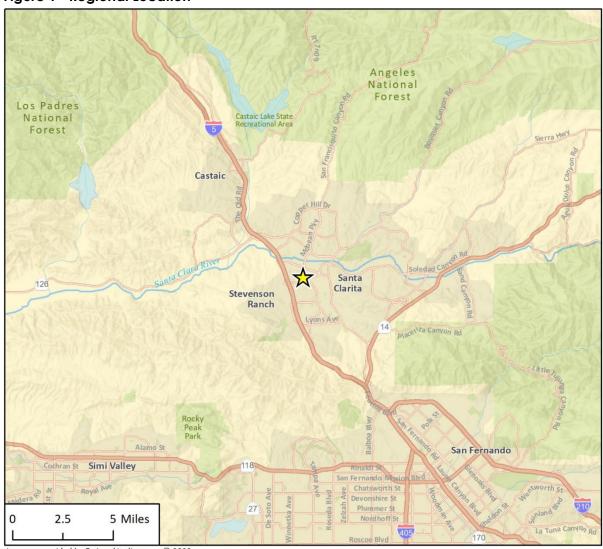
6. General Plan Designation

Open Space (OS)

7. Zoning

Open Space (OS)

Figure 1 Regional Location



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g 1 Regional Location

Figure 2 Project Site Location

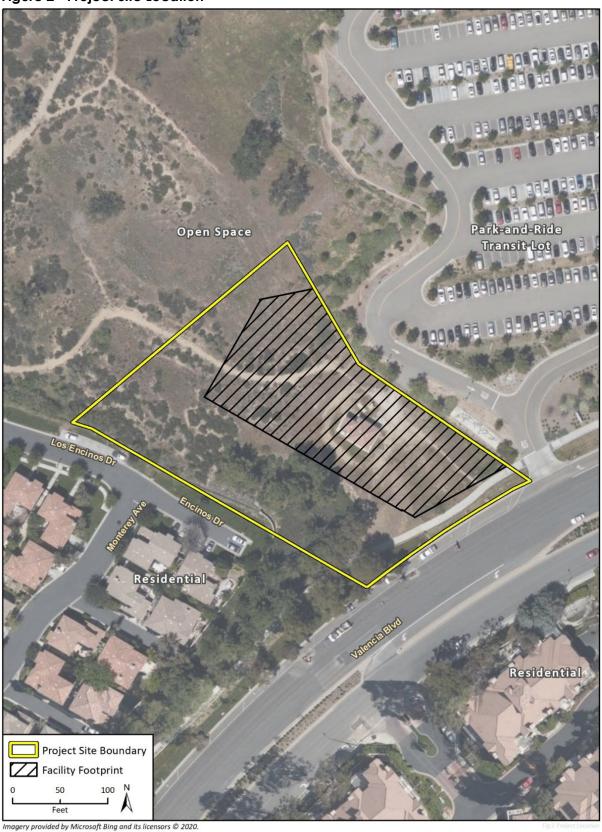
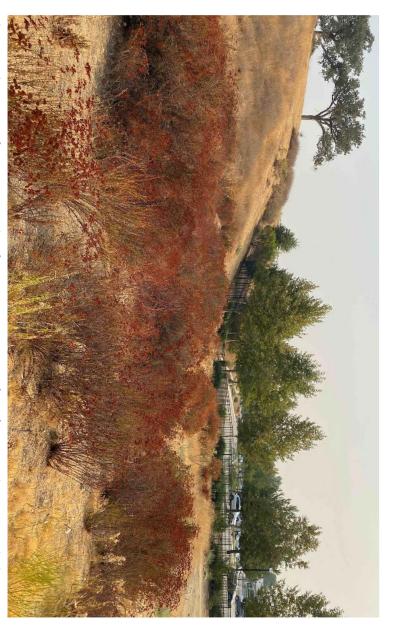


Figure 3 Site Photographs



north. Photograph 1. View of existing Well 205 structure, taken from southeast corner of project site facing



McBean Regional Transit Center Park and Ride parking lot. **Photograph 2.** View of project site, taken from western portion of site facing northeast towards the



Photograph 3. View of existing storm drain, taken from eastern portion of project site facing northeast towards the McBean Regional Transit Center Park and Ride parking lot.



Photograph 4. View of existing Well 205 building, taken from western portion of site facing east towards Valencia Boulevard.

8. Description of Project

Background

In 2000, SCV Water constructed Well 205 on the project site for the purpose of pumping groundwater from the Saugus Formation of the Santa Clara River Valley Groundwater Basin. Well 205 was operational between 2000 and 2012. In April 2012, Well 205 was voluntarily taken out of service with notice to the California State Water Resources Control Board, Division of Drinking Water due to initial low-level perchlorate detections. In January 2018, the well status was changed to inactive.

Project Description

The Well 205 Groundwater Treatment Project (herein referred to as "proposed project" or "project") would involve construction and operation of a new groundwater treatment facility for treatment of perchlorate and other groundwater contaminants at the project site. Under the proposed project, all existing facilities would remain in place. The new treatment facility would consist of a chemical building, water tanks, pumps, and treatment equipment alongside the existing facilities at the site. The new chemical building would be approximately 612 square feet and would be located approximately 10 feet southeast of the existing Well 205 building. The building would consist of concrete masonry unit material and would be constructed to match the architectural style of the existing Well 205 building, which is also constructed from concrete masonry unit material. The chemical storage building would contain a liquid ammonium sulfate room and a sodium hypochlorite room. These non-hazardous chemicals would be stored in recessed concrete double-containment and double-walled chemical tanks, which provide additional protection against any spills or leaks. The chemical building would be locked.

Table 1 summarizes the proposed treatment equipment and dimensions. To provide a conservative estimate of project impacts, this list comprises the full potential suite of treatment equipment; however, all equipment listed may not ultimately be included in the project. Treatment equipment would be located outdoors and would be coated for corrosion control using a non-reflective Bayberry-colored paint. The project also includes a shade structure over the proposed vessels.

Table 1 Proposed Treatment Equipment

Proposed Treatment Equipment	Dimensions/Specifications				
Granulated activated carbon (GAC) vessels (6)	12 ft diameter x 18 ft height				
Ion exchange (IX) vessels (4)	12 ft diameter x 16 ft 4 in. height				
Backwash tank (1)	12 ft diameter x 18 ft height				
Cartridge filter vessels (3)	2 ft width x 5 ft height				
Sodium hypochlorite salt tank (600-gallon)	5 ft diameter x 7 ft 10 in. height				
Sodium hypochlorite day tank (1,800-gallon)	8 ft 6 in. diameter x 8 ft 4 in. height				
Liquid ammonium sulfate tank (650-gallon)	4 ft 8 in. diameter x 5 ft 10 in. height				
Well pump	2,700 gpm, 800 HP				
Sodium hypochlorite metering pump	75 gph, 1/2 HP				
Liquid ammonium sulfate metering pump	1 gph, 1/10 HP				
ft: foot; in.: inches; gpm: gallons per minute; gph: gallons per hour; HP: horsepower					

The proposed project would not increase the production capacity of Well 205. However, due to the increased pressure demands of the new groundwater treatment process flow, the proposed project includes an upgraded pump head inside the Well 205 building. The existing Well 205 well pump has a production capacity of 2,700 gallons per minute (gpm). The proposed project would replace the existing well pump housed inside the Well 205 building with a new 2,700-gpm, 800-horsepower (HP) pump. All pumps would be operational 24 hours per day, 365 days per year.

Figure 4 shows the site plan for the proposed treatment facility with the currently anticipated equipment configuration, and Figure 5 shows simulated 3D renderings of the proposed project facilities at the Well 205 site assuming the full potential suite of treatment equipment is installed (i.e., the worst-case scenario). The development footprint of the proposed groundwater treatment facility would be approximately 33,000 square feet, or approximately 0.8 acre. An eight-foot-tall retaining wall made of masonry and concrete, which would partially screen the site from public view, would be constructed around the entire facility footprint, including the existing Well 205 building and the proposed groundwater treatment facility. Two controlled entry gates would be constructed with one facing east towards the McBean Regional Transit Center Park and Ride parking lot and one facing south along Valencia Boulevard along with a new access driveway along Valencia Boulevard. A paved truck access road would be installed on the project site to facilitate truck deliveries, and the remainder of the facility footprint would be covered in crushed rock or decomposed granite. Stormwater runoff would be directed towards an existing stormwater drain inlet on the eastern side of the project site, as shown in Figure 3, Photograph 3. In addition, the proposed project would plant approximately 50 native trees along the western portion of the project site. The vegetative plantings would consist of mature trees, ranging between 18 and 24 feet in height.

Construction

Construction of the proposed project would occur between mid-2023 and mid-2024. Construction activities would typically occur between 7:00 a.m. and 4:00 p.m., Monday through Friday. No nighttime construction is proposed. Occasional weekend work may be required. Construction personnel vehicles would be parked on the project site. Construction materials would also be staged at the project site. The maximum depth of excavation would be six feet, and up to 300 cubic yards (cy) of soil would be imported to the site. No soil would be exported.

Operation and Maintenance

Upon completion of project construction activities, Well 205 would be reactivated. Groundwater pumped from Well 205 would proceed through pre-filters, granular activated carbon (GAC) vessels, ion exchange (IX) vessels, and chemical injection before connecting to an existing water distribution pipeline on the project site. Figure 6 shows the groundwater treatment process flow.

As previously discussed, the proposed project would not increase the production capacity of Well 205. Consistent with previous operating conditions, Well 205 would be equipped to produce up to 2,700 gpm of groundwater from the Saugus Formation of the Santa Clara River Valley Groundwater Basin. The project would treat up to 4,360 acre-feet per year of groundwater.

The proposed project would consume approximately 490 kilowatts (kW) of electricity and would operate 24 hours per day, 365 days per year. On an annual basis, the project would consume approximately 4,300 megawatt-hours (MWh) of electricity through the local electricity grid, which would be supplied by Southern California Edison (SCE). No upgrades to local electricity infrastructure would be required.

Figure 4 Site Plan (Anticipated Equipment Configuration) 20' GATE **____** PRELIMINARY DÉSIGN PRASE

NOT FOR CONSTRUCTION

THIS DOQUMENTS AN INTERIM DOCUMENT AND NOT SUITABLE FORCONSTRUCTION. AS AN INTERIM DOCUMENT, PRAY CONTRACTE FOR
STOTETHALLY MACCIPANTS OR INCORP. STAN AND THE SUITABLE FOR STOTETHALLY MACCIPANTS OR INCORP. STAN AND THE SUITABLE FOR ST GRAPHIC SCALE 1" = 10'

Figure 5 3D Renderings (Worst-Case Scenario)



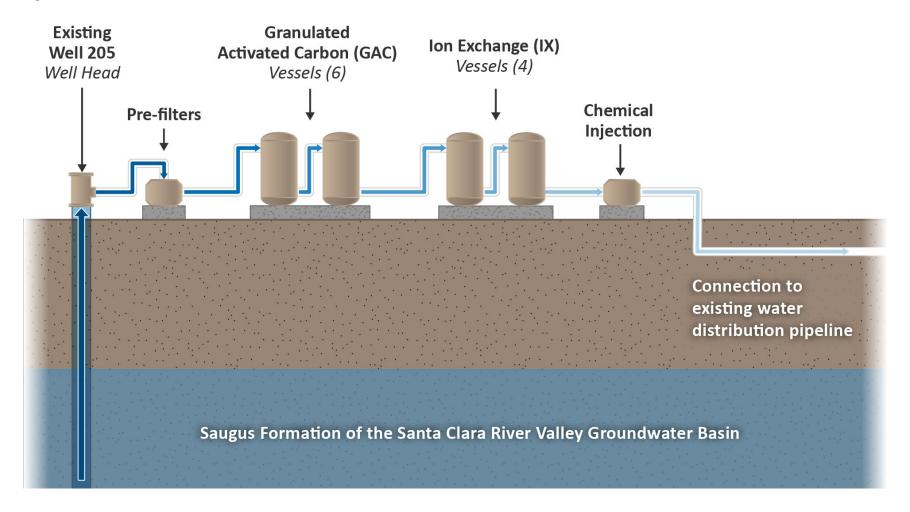
Rendering 1. Simulated view of project site, facing east.



Rendering 2. Simulated aerial view of project site, facing east.

Type of Report 9

Figure 6 Groundwater Treatment Process Flow



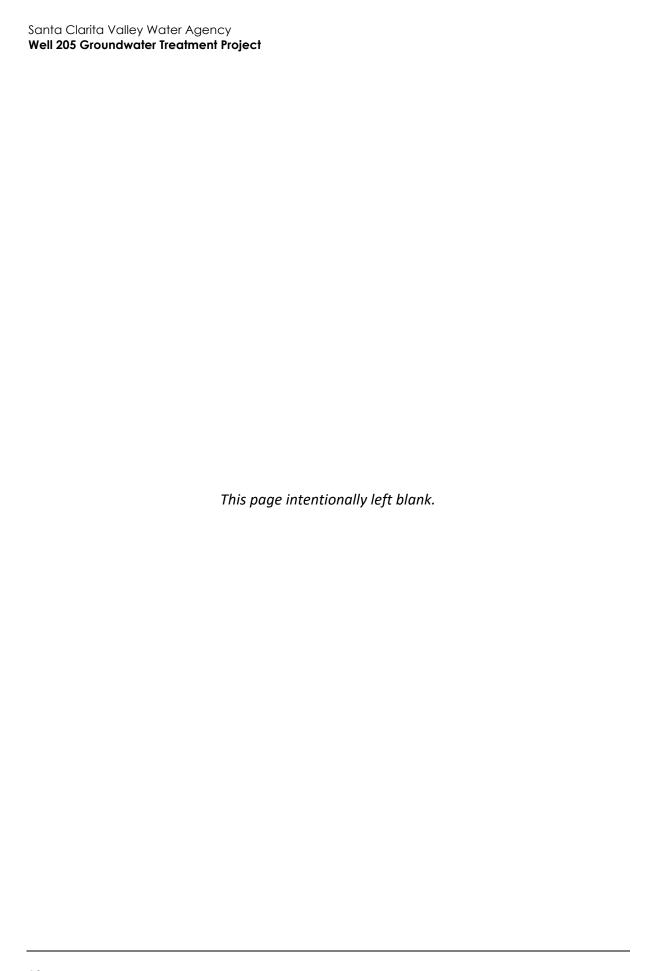
Maintenance of the proposed project would include regular backwashing, replacement of filtration media, and routine performance monitoring and sampling. Maintenance staff would visit the project site daily, 365 days a year. Regular and routine maintenance activities would not include any ground-disturbing activities. Maintenance vehicles would park on the project site near the proposed equipment. Chemical deliveries would occur once every 30 days. GAC media would be replaced approximately once every two years, and IX media would be replaced approximately once every six to nine months. Major equipment (e.g., pumps and vessels) are anticipated to last more than 20 years.

9. Surrounding Land Uses and Setting

The project site is surrounded by residential development to the west, Valencia Boulevard and residential development to the south, the McBean Regional Transit Center Park and Ride parking lot to the east, and open space to the north. Surrounding land uses are labeled in Figure 2.

10. Other Public Agencies Whose Approval is Required

SCV Water is the lead agency for this project. Because the proposed project is located in an area zoned as Open Space by the Santa Clarita Municipal Code, the project would require a permit from the Santa Clarita City Manager prior to any vegetation removal (Santa Clarita Municipal Code Section 14.10.060).



Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is "Potentially Significant" or "Less than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

Aesthetics		Agriculture and Forestry Resources		Air Quality
Biological Resources		Cultural Resources		Energy
Geology and Soils		Greenhouse Gas Emissions	•	Hazards and Hazardous Materials
Hydrology and Water Quality		Land Use and Planning		Mineral Resources
Noise		Population and Housing		Public Services
Recreation		Transportation		Tribal Cultural Resources
Utilities and Service Systems	•	Wildfire	•	Mandatory Findings of Significance

Determination

Based on this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to 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 "less than significant with mitigation incorporated" 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.

Santa Clarita Valley Water Agency Well 205 Groundwater Treatment Project

☐ I find that although the proposed project could have a sign environment, because all potential significant effects (a) an earlier EIR or NEGATIVE DECLARATION pursuant to appear avoided or mitigated pursuant to that earlier EIR or including revisions or mitigation measures that are imposs nothing further is required.	have been analyzed adequately in plicable standards, and (b) have NEGATIVE DECLARATION,			
Rick Vasilopulos	4/18/2022			
Signature	Date			
Rick Vasilopulos	Water Resources Planner			
Printed Name Title				

Environmental Checklist

1	Aesthetics				
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Exc	cept as provided in Public Resources Code Se	ction 21099,	would the proj	ject:	
a.	Have a substantial adverse effect on a scenic vista?				•
b.	Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				
C.	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?				
d.	Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?			•	

Existing Setting

The project site currently contains the existing Well 205 building and appurtenant facilities as well as undeveloped open space. As shown in Figure 2 under *Project Location*, the existing Well 205 building is located on the eastern side of the project site near the McBean Regional Transit Center Park and Ride parking lot. The existing Well 205 building is built of concrete masonry unit material with a Spanish style roof. The remainder of the project site is currently undeveloped with scattered vegetation. Large arboreal trees line the western edge of the project site in addition to smaller shrubs scattered throughout the site. Several dirt pathways connect with one another across the project site. A paved pedestrian sidewalk runs along the southern boundary of the project site, parallel to Valencia Boulevard. Figure 3 under *Project Location* shows site photographs of the existing site and facilities. The project site is surrounded by residential development to the west, Valencia Boulevard and residential development to the south, the McBean Regional Transit Center Park and Ride parking lot to the east, and open space to the north. Surrounding land uses are labeled in Figure 2 under *Project Location*.

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

According to the City of Santa Clarita's General Plan Conservation and Open Space Element (2011a), "scenic resources" can include "natural open spaces, topographic formations, and landscapes that contribute to a high level of visual quality." The General Plan describes scenic resources in the Santa Clarita Valley as mountains and canyons, woodlands, water bodies, and Vasquez Rocks County Park. The City's General Plan does not specifically define scenic vistas; therefore, there are no designated scenic vistas in the vicinity of the project site.

The Conservation and Open Space Element specifically identifies several large mountain and canyon regions that are of aesthetic importance to the community, including Placerita Canyon, Whitney Canyon, Elsmere Canyon, Bouquet Canyon, San Francisquito Canyon, Sand Canyon, Pico Canyon, and Towsley Canyon (City of Santa Clarita 2011a). The project site is not located in any of these identified regions of aesthetic importance.

Although the project site itself contains undeveloped natural land, it is located in a suburban setting and is surrounded by suburban development on three sides. The project site is not located in a region identified by the City's General Plan as a scenic vista or scenic resource area. As such, the proposed project would not have a substantial adverse effect on a scenic vista. No impact would occur.

NO IMPACT

b. Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The project site is not located adjacent to a designated state scenic highway, as identified by the California Department of Transportation (Caltrans) (Caltrans 2022). The closest designated state scenic highway is State Route 2, located approximately 23 miles to the southeast of the project site. Due to distance and intervening topography, the project site is not visible from State Route 2. Therefore, the project would not substantially damage scenic resources within a state scenic highway. No impact would occur.

NO IMPACT

c. Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Pursuant to Public Resources Code (PRC) Section 21071, an incorporated city with a population of at least 100,000 people meets the criteria for an urbanized area. Santa Clarita has a population of approximately 221,572 people and is therefore considered an urbanized area under the California Environmental Quality Act (CEQA; California Department of Finance 2021). The site itself is currently zoned as Open Space (OS) and currently contains water infrastructure in the form of the existing Well 205 building and its appurtenant facilities. Utility public services are permitted in OS zones and typically require a conditional use permit. However, according to Government Code Section 53091, "Zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water...". As such, a conditional use permit would not be required, and the project would not conflict with the applicable zoning.

According to the City of Santa Clarita's General Plan Conservation and Open Space Element (2011a), "scenic resources" can include "natural open spaces, topographic formations, and landscapes that contribute to a high level of visual quality." The General Plan describes scenic resources in the Santa Clarita Valley as mountains and canyons, woodlands, water bodies, and Vasquez Rocks County Park.

The City's General Plan identifies the following goals and policies to protect and preserve the City's scenic resources:

Goal CO 6: Preservation of scenic features that keep the Santa Clarita Valley beautiful and enhance quality of life, community identity, and property values.

Objective 6.1: Protect the scenic character of local topographic features.

Objective 6.2: Protect the scenic character of view corridors.

Objective 6.3: Protect the scenic character of major water bodies.

Objective 6.4: Protect the scenic character of oak woodlands, coastal sage, and other habitats

unique to the Santa Clarita Valley.

Objective 6.5: Maintain the scenic character of designated routes, gateways, and vista points

along roadways.

Objective 6.6: Limit adverse impacts by humans on the scenic environment.

The proposed project would not degrade the scenic character of local topographic features; view corridors; major water bodies; oak woodlands, coastal sage, and other habitats unique to the Santa Clarita Valley; or designated routes, gateways, and vista points along roadways because none are present on or near the project site. In addition, as discussed under item (a), although the project site itself contains undeveloped natural land, it is located in a suburban setting and is surrounded by suburban development on three sides. Existing open space to the north of the project site would remain undeveloped. In addition, as shown in the simulated 3D renderings of the proposed project in Figure 5 under Description of Project, the proposed project is designed to minimize aesthetic impacts. The new chemical building would consist of concrete masonry unit material and would be constructed to match the architectural style of the existing Well 205 building, which is made of the same material. The facility would be surrounded by an eight-foot-tall retaining wall made of masonry and concrete, which would partially screen the site from public view, and the proposed treatment equipment would be painted a non-reflective, neutral, Bayberry-colored paint. In addition, the proposed project includes planting approximately 50 native trees along the western portion of the project site, which would consist of mature trees, ranging between 18 and 24 feet in height, that would further screen the project site from the adjacent residential community. Therefore, the project would limit adverse impacts by humans on the scenic environment. As a result, the proposed project would not conflict with General Plan policies to protect and preserve scenic resources, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

Construction

Construction would occur during daytime hours and would generally not require the use of lighting. However, construction lighting may be required during the afternoon hours in the late fall and early winter months. In this case, lights may be visible from surrounding roadways and residential and other land uses. Any necessary lights used during construction activities would create a new temporary light source that would otherwise not be present. However, the lighting would not face toward adjacent uses and would be directed down towards construction activities. Furthermore, construction would be temporary and limited to the 16-month construction period. Therefore, construction-related impacts to light and glare would be less than significant.

Operational

Similar to the existing Well 205 building, the proposed groundwater treatment facility would include external safety lighting upon completion of construction, which would be directed and shielded toward project facilities to minimize or avoid light spillage outside the project site. In addition, the proposed treatment equipment would be coated for corrosion control using a non-reflective paint. Therefore, operational-related impacts to light and glare would be less than significant.

LESS THAN SIGNIFICANT IMPACT

Agriculture and Forestry Resources Less than **Significant Potentially** with Less than Significant Mitigation Significant **Impact** Incorporated **Impact** No Impact Would the project: a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? b. Conflict with existing zoning for agricultural use or a Williamson Act contract? c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? П П \Box d. Result in the loss of forest land or conversion of forest land to non-forest use? e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

- a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?
- b. Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?
- c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?
- d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

Santa Clarita Valley Water Agency

Well 205 Groundwater Treatment Project

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

According to the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (2022a), the project site and immediate surrounding areas are not designated as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance. The project site is not located on land enrolled under the Williamson Act or zoned for agricultural use. Therefore, the project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use and would not conflict with zoning for agricultural use or a Williamson Act contract. In addition, due to the absence of agricultural land on or near the project site, the project would not involve changes to the existing environment that could result in conversion of Farmland to non-agricultural use. No impact to agricultural resources would occur.

The project site and its surroundings are located in a suburban area of Santa Clarita and do not contain forest land. Neither the project site nor surrounding properties are zoned for forest land, timberland, or timberland production. Therefore, the project would not involve changes to the existing environment that could result in the loss of forest land or the conversion of forest land to non-forest use. No impact to forestry resources would occur.

NO IMPACT

3	Air Quality				
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Wo	ould the project:				
a.	Conflict with or obstruct implementation of the applicable air quality plan?				•
b.	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?			•	
c.	Expose sensitive receptors to substantial pollutant concentrations?			•	
d.	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?				•

Air Quality Standards and Attainment

The project site is located within the South Coast Air Basin (SCAB), which is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east, and includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Gorgonio Pass area in Riverside County. The SCAB is under the regulatory jurisdiction of the South Coast Air Quality Management District (SCAQMD), which is required to monitor air pollutant levels to ensure National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) are met and, if they are not met, to develop strategies to meet the standards.

Depending on whether the standards are met or exceeded, the SCAB is classified as being in "attainment" or "nonattainment" for air quality. The SCAQMD's 2016 Air Quality Management Plan (AQMP) assesses the attainment status of the SCAB. The NAAQS and CAAQS attainment statuses for the SCAB are listed in Table 2. As shown therein, the SCAB is in nonattainment for the NAAQS for ozone and particulate matter 2.5 microns or less in diameter (PM_{2.5}) and the CAAQS for ozone, particulate matter 10 microns or less in diameter (PM₁₀), and PM_{2.5}. The Los Angeles County portion of the SCAB is also in nonattainment for lead (SCAQMD 2017). The SCAB is designated unclassifiable or in attainment for all other NAAQS and CAAQS. Thus, the SCAB currently exceeds several NAAQS and CAAQS and is required to implement strategies that would reduce pollutant levels to recognized acceptable standards. The SCAQMD has adopted an AQMP that provides a strategy for the attainment of the NAAQS and CAAQS.

Table 2 South Coast Air Basin Attainment Status

			a Ambient Air y Standards	National Ambient Air Quality Standards		
Pollutant	Averaging Time	Concentration	Attainment Status	Concentration	Attainment Status	
Ozone	8-Hour	0.070 ppm	N	0.070 ppm	N	
	1-Hour	0.09 ppm	N	_	_	
Carbon Monoxide	8-Hour	9.0 ppm	Α	9 ppm	А	
	1-Hour	20 ppm	Α	35 ppm	Α	
Nitrogen Dioxide	1-Hour	0.18 ppm	Α	0.100 ppm	U/A	
	Annual Arithmetic Mean	0.030 ppm		0.053 ppm	А	
Sulfur Dioxide	24-Hour	0.04 ppm	Α	0.14 ppm	U/A ¹	
	1-Hour	0.25 ppm	Α	0.075 ppm	U/A	
	Annual Arithmetic Mean	_	-	0.030 ppm	U/A	
Particulate Matter – Small (PM ₁₀)	Annual Arithmetic Mean	20 μg/m³	N	_	_	
	24-Hour	$50 \mu g/m^3$	N	$150 \mu g/m^3$	Α	
Particulate Matter - Fine (PM _{2.5})	Annual Arithmetic Mean	12 μg/m³	N	12 μg/m³	N	
	24-Hour	_	_	$35 \mu g/m^3$	N	
Sulfates	24-Hour	25 μg/m³	А	_	_	
Lead	Rolling 3-Month Average	_		0.15 μg/m ³	N ²	
	30-Day Average	$1.5 \mu g/m^3$	Α	_	_	
Hydrogen Sulfide	1-Hour	0.03 ppm (42 μg/m³)	А	_		
Vinyl Chloride (Chloroethene)	24-Hour	0.010 ppm (26 μg/m³)	Α	_	-	
Visibility Reducing Particles	8-Hour(10:00 to 18:00 PST)	_	No information available	_	-	

A = attainment; N = nonattainment; U = unclassified; ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter; PST = Pacific Standard Time

Source: SCAQMD 2017 and California Air Resources Board 2019a

Air Quality Management

Under State law, the SCAQMD is required to prepare a plan for air quality improvement for pollutants for which the SCAB is in nonattainment. The SCAQMD has adopted an AQMP that provides a strategy for the attainment of the NAAQS and CAAQS. Each iteration of the AQMP is an update of the previous plan and has a 20-year horizon. The latest AQMP, the 2016 AQMP, was adopted on March 3, 2017. The 2016 AQMP incorporates new scientific data and notable regulatory actions that have occurred since adoption of the 2012 AQMP, including the approval of the new 8-hour ozone NAAQS of 0.070 parts per million (ppm) that was finalized in 2015. The 2016 AQMP builds upon the approaches taken in the 2012 AQMP for the attainment of federal PM and ozone

¹Designation pending.

² Partial Nonattainment designation – Los Angeles County portion of the SCAB only for near-source monitors. Expect re-designation to attainment based on current monitoring data.

standards and highlights the significant amount of reductions to be achieved. It emphasizes the need for interagency planning to identify additional strategies to achieve reductions within the timeframes allowed under the federal Clean Air Act, especially in the area of mobile sources. The 2016 AQMP also includes a discussion of emerging issues and opportunities, such as fugitive toxic particulate emissions, zero-emission mobile source control strategies, and the interacting dynamics among climate, energy, and air pollution. The 2016 AQMP also includes attainment demonstrations of the new 8-hour ozone NAAQS and vehicle miles travelled (VMT) emissions offsets, pursuant to recent United States Environmental Protection Agency (U.S. EPA) requirements (SCAQMD 2017).

Thresholds of Significance

The SCAQMD provides numerical thresholds to analyze the significance of a project's construction and operational impacts to regional air quality. These thresholds, which are listed in Table 3, are designed such that a project consistent with the thresholds would not have an individually or cumulatively significant impact to the air quality in the SCAB.

Table 3 SCAQMD Regional Air Quality Significance Thresholds

	Mass Daily Thresholds			
Pollutant	Construction Thresholds (pounds/day)	Operation Thresholds (pounds/day)		
NO _X	100	55		
VOC	75	55		
PM ₁₀	150	150		
PM _{2.5}	55	55		
SO _X	150	150		
СО	550	550		
Lead	3	3		

 NO_x : nitrogen oxides; VOC: volatile organic compounds; PM_{10} : particulate matter 10 microns or less in diameter; $PM_{2.5}$: particulate matter 2.5 microns or less in diameter; SO_x : sulfur oxides; CO: carbon monoxide; SCAQMD = South Coast Air Quality Management District

Source: SCAQMD 2019

In addition to the above thresholds, the SCAQMD has developed Localized Significance Thresholds (LSTs) in response to the Governing Board's Environmental Justice Enhancement Initiative (1-4), which was prepared to update the CEQA Air Quality Handbook. LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities and have been developed for nitrogen oxides (NO_X), carbon monoxide, PM_{10} , and $PM_{2.5}$. LSTs represent the maximum emissions from a project that will not cause or contribute to an air quality exceedance of the most stringent applicable NAAQS or CAAQS at the nearest sensitive receptor, taking into consideration ambient concentrations in each source receptor area (SRA), distance to the sensitive receptor, and project size. LSTs only apply to emissions within a fixed stationary location and are not applicable to mobile sources, such as cars on a roadway (SCAQMD 2008). According to the SCAQMD (2008) *Final Localized Significance Thresholds Methodology*, the use of LSTs is voluntary, to be implemented at the discretion of local agencies.

The project is located within SRA 13, which covers the Santa Clarita Valley. LSTs have been developed for emissions within construction areas up to five acres in size. The SCAQMD provides lookup tables for sites that measure up to one, two, or five acres. As described under the

Description of Project, while the proposed facility footprint is approximately 0.8-acre, construction staging and equipment could take up a larger 1.75-acre site. Pursuant to SCAQMD guidance, a regression was conducted to calculate the LSTs for a 1.75-acre site.

LSTs are provided for receptors at a distance of 82 to 1,640 feet (25 to 500 meters) from the project site boundary. The sensitive receptors closest to the project site are single-family residences approximately 100 feet, or approximately 30 meters, to the west of the project site. This analysis conservatively uses LSTs for sensitive receptors at a distance of 25 meters. LSTs for construction in SRA 13 on a 1.75-acre site at a distance of 25 meters from receptors are shown in Table 4.

Table 4 SCAQMD LSTs for Construction

Pollutant	LSTs for a 1.75-acre Site in SRA 13 for a Receptor within 25 Meters (pounds/day)				
Gradual conversion of NO _x to NO ₂	151				
СО	805				
PM ₁₀	6				
PM _{2.5}	4				

LST: Localized Significance Threshold; SRA: Source Receptor Area; NOx: nitrogen oxides; NO₂: nitrogen dioxide; PM₁₀: particulate matter 10 microns or less in diameter; PM_{2.5}: particulate matter 2.5 microns or less in diameter; CO: carbon monoxide; SCAQMD = South Coast Air Quality Management District

Source: SCAQMD 2009

Applicable SCAQMD Rules and Regulations

Rule 403 (Fugitive Dust)

Rule 403 requires the implementation of best available dust control measures during active operations capable of generating fugitive dust.

Rule 1113 (Architectural Coatings)

Rule 1113 limits the volatile organic compound content of architectural coatings.

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

A project may be inconsistent with the AQMP if it would generate population, housing, or employment growth exceeding the forecasts used in the development of the AQMP. The 2016 AQMP relies on local city general plans and the Southern California Association of Governments' (2016) *Regional Transportation Plan/Sustainable Communities Strategy* forecasts of regional population, housing, and employment growth in its projections for managing air quality in the SCAB.

The project does not include new housing or businesses, and operation and maintenance of the proposed project would not require new SCV Water employees. Furthermore, the proposed project would not increase the pumping capacity of the existing Well 205 and would not provide an additional source of water supplies to serve new population growth. Therefore, the project would not directly or indirectly generate population, housing, or employment growth. As a result, the project would not exceed the Southern California Association of Governments' projected growth forecasts, which underlie the emissions forecasts in the 2016 AQMP. Therefore, the project would not conflict with or obstruct implementation of the AQMP. No impact would occur.

NO IMPACT

b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Criteria pollutants include ozone, carbon monoxide, PM₁₀, PM_{2.5}, sulfur oxides, and lead. As discussed under *Air Quality Standards and Attainment*, the SCAB is a nonattainment area for the ozone and PM_{2.5} NAAQS and the ozone, PM₁₀, and PM_{2.5} CAAQS. The Los Angeles County portion of the SCAB in which the project site is located is also designated nonattainment for lead (SCAQMD 2017). The SCAB is designated unclassifiable or in attainment for all other NAAQS and CAAQS. Consistent with CEQA Guidelines Section 15064(h)(3), SCAQMD's approach for assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the federal and State Clean Air Acts. If the mass emissions calculated for the project exceed the applicable SCAQMD daily significance thresholds that are designed to assist the region in attaining the applicable NAAQS and CAAQS, emissions generated by the project would be considered cumulatively considerable.

Methodology

This air quality analysis conforms to the methodologies recommended in the *SCAQMD CEQA Air Quality Handbook*, as well as supplemental guidance provided by SCAQMD. The project's construction and operational emissions of criteria air pollutants were estimated using the California Emissions Estimator Model (CalEEMod), version 2020.4.0. CalEEMod was developed by SCAQMD and is used by jurisdictions throughout the state to quantify criteria pollutant emissions. CalEEMod modeling results are shown in Appendix A.

Compliance with SCAQMD Rule 403, Fugitive Dust Emissions, and SCAQMD Rule 1113, Architectural Coatings, was included in the model. SCAQMD Rule 403 requires construction site watering at least twice daily (or implementation of an equivalent dust control measure) to control dust from disturbed soil. SCAQMD Rule 1113 requires the use of paints with low volatile organic compound content.

For the purposes of modeling, the analysis relied upon the following conservative assumptions:

- **Construction Schedule.** Construction would commence in mid-2023 and be completed in mid-2024, for a total construction duration of 12 months.
- Project Site Area. For the purposes of emissions modeling, the area of the facility footprint was used to represent the project area (33,000 square feet, or 0.76 acre).
- **Haul Trips.** Approximately 300 cy of soil would be imported to the project site, for a total of 38 one-way haul trips.
- Operation and Maintenance Trips. For the purposes of calculating maximum daily air criteria pollutant emissions under operational conditions, this analysis conservatively analyzes a worst-case emissions scenario for operation and maintenance trips. The model assumes a maintenance staff trip, a chemical delivery trip, a GAC media replacement trip, and an IX media replacement trip would all occur on the same day. It was assumed 25 percent of vehicles visiting the site would be light-duty trucks (for maintenance staff) and 75 percent would be medium-duty vehicles (for chemical delivery and media replacement trips).

Operation of the proposed facility would require approximately 4,300 MWh of electricity per year; however, CalEEMod only calculates direct emissions of criteria pollutants from energy sources that combust on site, such as natural gas used in a building (California Air Pollution Control Officers

Association 2021). CalEEMod does not calculate or attribute emissions of criteria pollutants from electricity generation to individual projects because fossil fuel power plants are existing stationary sources permitted by air districts and/or the U.S. EPA, and they are subject to local, state and federal control measures. Criteria pollutant emissions from power plants are associated with the power plants themselves, and not individual projects or electricity users. Therefore, the primary source of operational air criteria pollutant emissions would be daily site visits to the facility for maintenance activities (i.e., mobile sources).

Construction Emissions

Project construction would generate temporary air pollutant emissions. These emissions are associated with fugitive dust and exhaust from heavy construction vehicles, as well as volatile organic compounds released during the application of architectural coatings. Table 5 summarizes the estimated maximum daily emissions of pollutants during project construction.

Table 5 Construction Emissions

	Estimated Maximum Daily Emissions (pounds/day)					
	voc	NO _x	со	SO_x	PM ₁₀	PM _{2.5}
Proposed Project	1	7	10	< 1	3	1
SCAQMD Regional Thresholds	75	100	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No
Maximum On-site Emissions	1	7	7	< 1	3	1
Localized Significance Thresholds (LSTs) (on-site only)	N/A	151	805	N/A	6	4
Threshold Exceeded?	N/A	No	No	N/A	No	No

VOC: volatile organic compounds; NOx: nitrogen oxides; CO: carbon monoxide; SOx: sulfur oxides; PM₁₀: particulate matter 10 microns or less in diameter; PM_{2.5}: particulate matter 2.5 microns or less in diameter

See Appendix A for CalEEMod results.

Notes: Emissions presented are the highest of the winter and summer modeled emissions. Due to rounding, numbers may not add up precisely to the totals indicated. Emission data is pulled from "mitigated" results, which include regulatory compliance measures that would be implemented during Project construction, such as watering of soils during construction as required under SCAQMD Rule 403.

As shown in Table 5, construction emissions generated by the project would not exceed SCAQMD's regional thresholds or LSTs. Furthermore, the proposed project would be required to comply with SCAQMD Rules 403 and 1113. Therefore, project construction would not result in a cumulatively considerable net increase of any criteria pollutant for which the SCAB is non-attainment under an applicable NAAQS or CAAQS. Construction-related impacts associated with criteria air pollutant emissions would be less than significant.

Operational Emissions

The primary source of operational emissions associated with the proposed project would be daily vehicle trips by staff for maintenance activities (i.e., mobile sources). Other sources would include the off-gassing of architectural coatings used for the proposed chemical building, paved surfaces, and vessels. Table 6 summarizes maximum daily pollutant emissions during operation of the project.

Table 6 Operational Emissions

	Estimated Maximum Daily Emissions (pounds/day)						
VOC NO _X CO SO _X PM ₁₀						PM _{2.5}	
Area	< 1	< 1	< 1	< 1	< 1	< 1	
Mobile	< 1	< 1	< 1	< 1	< 1	< 1	
Total	< 1	< 1	<1	< 1	< 1	< 1	
SCAQMD Thresholds	55	55	550	150	150	55	
Threshold Exceeded?	n/a	No	No	n/a	No	No	

VOC: volatile organic compounds; NO $_{x}$: nitrogen oxides; CO: carbon monoxide; SO $_{x}$: sulfur oxides; PM $_{10}$: particulate matter 10 microns or less in diameter; PM $_{2.5}$: particulate matter 2.5 microns or less in diameter; SCAQMD: South Coast Air Quality Management District See Appendix A for modeling results.

Notes: Emissions presented are the highest of the winter and summer modeled emissions. Numbers may not add up due to rounding.

As shown in Table 6, operational emissions from the proposed project would not exceed the SCAQMD thresholds for any criteria pollutant. Therefore, project operation would not result in a cumulatively considerable net increase of any criteria pollutant for which the SCAB is non-attainment under an applicable NAAQS or CAAQS. Operational impacts associated with criteria air pollutant emissions would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

Certain population groups, such as children, the elderly, and people with health problems, are particularly sensitive to air pollution. Sensitive receptors are defined as land uses that are more likely to be used by these population groups and include health care facilities, retirement homes, school and playground facilities, and residential areas. The project site is located adjacent to a residential neighborhood. However, as discussed under item (b) above, the project's construction and operational emissions of criteria air pollutants would not exceed the SCAQMD regional thresholds or LSTs, which are designed to be protective of public health as it relates to criteria air pollutant emissions.

The following subsections discuss the potential for the proposed project to expose sensitive receptors to substantial concentration of carbon monoxide and toxic air contaminants (TACs).

Carbon Monoxide Hotspots

A carbon monoxide hotspot is a localized concentration of carbon monoxide that is above the state one-hour or eight-hour standards of 20.0 ppm and 9.0 ppm, respectively. Localized carbon monoxide hotspots generally occur at intersections with heavy peak hour traffic. Specifically, hotspots can be created at intersections where traffic volumes are high and there is heavy congestion. The entire SCAB is a federal carbon monoxide maintenance area. The closest carbon monoxide monitoring station to the project site is the U.S. EPA monitoring station located at 22224 Placerita Canyon Road in Santa Clarita. In 2021, the Santa Clarita monitoring station detected a maximum eight-hour maximum carbon monoxide concentration of 0.6 ppm, which is substantially below the state and federal eight-hour standard of 9.0 ppm (U.S. EPA 2022).

As shown in Table 5, project construction would generate maximum daily carbon monoxide emissions of approximately 10 pounds per day, which is well below the SCAQMD regional threshold of 550 pounds per day. In addition, maximum daily on-site carbon monoxide emissions of

approximately 7 pounds per day, which is well below the LST threshold of 805 pounds per day. Additionally, as shown in Table 6, project operation would generate maximum daily carbon monoxide emissions of less than one pound per day, which is well below the SCAQMD regional threshold of 550 pounds. Both SCAQMD regional thresholds and LSTs are designed to be protective of public health. Based on the low background level of carbon monoxide in the project area, everimproving vehicle emissions standards for new cars in accordance with state and federal regulations, and the project's low level of operational carbon monoxide emissions, the project would not create new hotspots or contribute substantially to existing hotspots. Therefore, the project would not expose sensitive receptors to substantial carbon monoxide concentrations, and impacts would be less than significant.

Toxic Air Contaminants

TACs are a diverse group of air pollutants that may cause or contribute to an increase in deaths or serious illness or that may pose a present or potential hazard to human health. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. TACs are different than the criteria pollutants previously discussed because ambient air quality standards have not been established for TACs. TACs occurring at extremely low levels may still cause health effects, and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic risk and by chronic (i.e., of long duration) and acute (i.e., severe but of short duration) adverse effects on human health.

Project construction is expected to occur over an approximately 12-month period and would result in the generation of diesel particulate matter (DPM) emissions from the use of off-road diesel equipment required for site grading and excavation, paving, and other construction activities as well as from on-road diesel equipment used to bring materials to and from the project site. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person continuously exposed to concentrations of TACs over a 70-year lifetime will contract cancer based on the use of standard risk assessment methodology. SCAQMD CEQA guidance does not require preparation of a health risk assessment for short-term construction emissions. Therefore, it is not necessary to evaluate longterm cancer impacts from construction activities that occur over a relatively short duration. In addition, there would be no residual emissions or corresponding individual cancer risk after construction is complete. Furthermore, with ongoing implementation of U.S. EPA and California Air Resources Board (CARB) requirements for cleaner fuels, off-road diesel engine retrofits, and new, low-emission diesel engine types, DPM emissions from construction equipment would be substantially reduced. Therefore, project construction would not expose sensitive receptors to substantial concentrations of TACs, and impacts would be less than significant.

CARB's (2005) Air Quality and Land Use Handbook: A Community Health Perspective provides recommendations regarding the siting of new sensitive land uses near potential sources of air toxic emissions (e.g., freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities). SCAQMD adopted similar recommendations in its Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning (2005). The project proposes water treatment facilities, which are not identified as a land use emitting substantial TAC concentrations. The project does not include any stationary sources of TAC

emissions. Therefore, project operation would not expose sensitive receptors to substantial concentrations of TACs, and no operational impacts would occur.

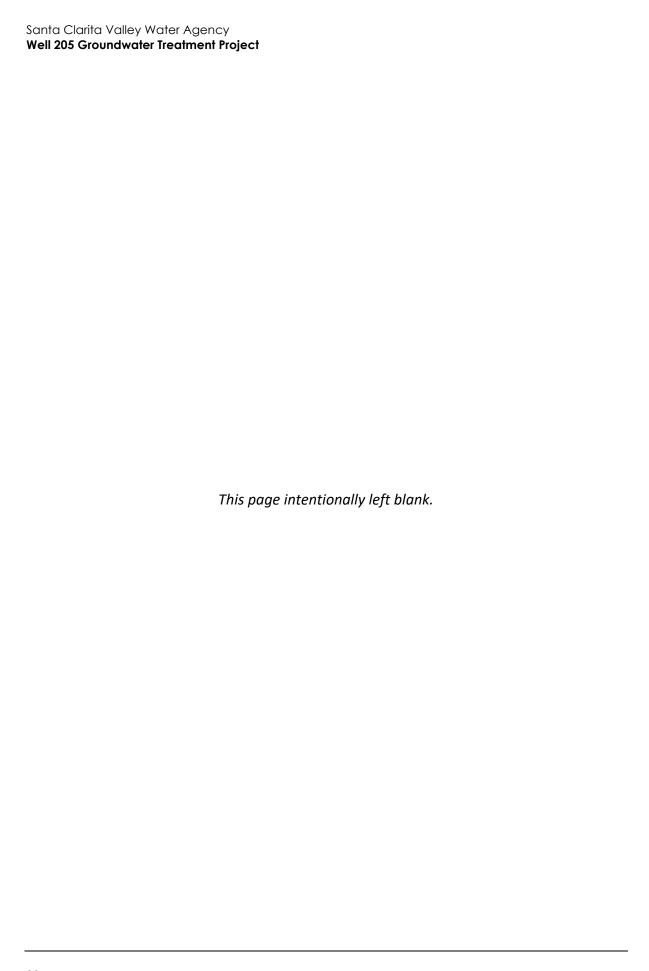
LESS THAN SIGNIFICANT IMPACT

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

During construction, the project would generate oil and diesel fuel odors from use of heavy equipment as well as odors related to asphalt paving. The odors would be limited to the construction period, would be temporary, and would dissipate rapidly with distance. Therefore, project construction would not result in other emissions, such as those leading to odors, adversely affecting a substantial number of people, and impacts would be less than significant.

The SCAQMD (1993) *CEQA Air Quality Handbook* identifies land uses associated with odor complaints to be agricultural uses, wastewater treatment plants, chemical and food processing plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project would not include any of these uses that are known to generate odors and no adverse impact would occur.

NO IMPACT



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

In March 2021, Rincon Consultants, Inc. conducted a Biological Resources Assessment, including a literature review and field reconnaissance survey, to document existing site conditions and the potential presence of special-status biological resources, including plant and wildlife species, plant communities, jurisdictional waters and wetlands, and habitat for nesting birds. The biological reconnaissance survey encompassed the proposed project footprint (i.e., areas that are expected to be affected by the proposed project) and a 100-foot survey buffer, referred to in this section as the "project area." The following summarizes the findings of the assessment. The complete Biological Resources Assessment is contained in Appendix B of this document.

A review of recent and historical aerial imagery indicates that from 1947 through 1959, the project area and vicinity contained open space and agricultural fields that were subject to disturbance. Vegetation communities and land cover types documented within the project area during the reconnaissance survey include California buckwheat scrub, purple sage scrub, upland mustards, ornamental landscaping, bare ground, and developed areas. Plant and wildlife species observed in the project area during the reconnaissance survey are listed in Attachment D of the Biological Resources Assessment (Appendix B). No jurisdictional waters or wetlands were observed within the project area.

a. Would the project 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?

Special-status species are those plants and animals listed, proposed for listing, or candidates for listing as Threatened or Endangered by the United States Fish and Wildlife Service (USFWS) under the federal Endangered Species Act; those considered "Species of Concern" by the USFWS; those listed or candidates for listing as Rare, Threatened, or Endangered by the California Department of Fish and Wildlife (CDFW) under the California Endangered Species Act; animals designated as "Fully Protected" by the California Fish and Game Code (CFGC); animals listed as "Species of Special Concern" (SSC) by the CDFW; and CDFW Special Plants, specifically those with California Rare Plant Ranks of 1B, 2, 3, and 4 in the California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California. A list of special-status plant and wildlife species with potential to occur on site was developed based on a review of a five-mile search of the California Natural Diversity Database (CNDDB) and the California Native Plant Society's online Inventory of Rare and Endangered Vascular Plants of California (Appendix B).

Special-Status Plants

Twenty special-status plant species and 23 special-status wildlife species are known to occur or have the potential to occur within five miles of the project area. No special-status plant species were detected within the project area during the reconnaissance survey. Of the 20 plant species evaluated, none have a moderate or high potential to occur within the project area. Seven species have a low potential to occur, and 13 are not expected to occur based on factors ranging from the existing developed nature of the project site, history of disturbance of the project area, lack of suitable soils, inappropriate hydrologic conditions, absence of appropriate vegetation communities, and lack of observation during the reconnaissance survey conducted for perennially identifiable species. In addition, the CNDDB occurrences for several species are historical, dating to the mid-1900s or earlier. Therefore, no impacts to special-status plant species would occur as a result of the proposed project.

Special-Status Wildlife

No special-status wildlife species were detected within the project area during the reconnaissance survey. Of the 23 wildlife species evaluated, five have a moderate potential to occur within the project area: California legless lizard (*Anniella* spp., SSC), California glossy snake (*Arizona elegans occidentalis*, SSC), coast horned lizard (*Phrynosoma blainvillii*, SSC), coastal whiptail (*Aspidoscelis tigris stejnegeri*, SSC), and white-tailed kite (*Elanus leucurus*, CDFW fully protected species). Seven species have a low potential to occur, including coastal California gnatcatcher (*Polioptila californica californica*, federally Threatened, SSC).

Species of Special Concern

The California buckwheat scrub and purple sage scrub vegetation communities within the project area provide moderately suitable habitat for California legless lizard, California glossy snake, coast horned lizard and coastal whiptail. Project activities could potentially directly or indirectly impact individuals of these species with moderate potential to occur. However, these SSC-designated species with potential to occur are not geographically restricted to the vicinity of the project area, and injury/death to limited individuals would not contribute to a loss of population viability of these SSC-designated species. Furthermore, implementation of Mitigation Measure BIO-1 would reduce potential direct and indirect effects to these species to a less-than-significant level.

White-tailed Kite

The upland mustards vegetation community within the project area provides foraging habitat for white-tailed kite. This species primarily feeds on small mammals and forages by hovering over open fields and marshes; however, suitable nesting habitat is not present within the project area. The project would result in the removal of a relatively small area of suitable foraging habitat for white-tailed kite; however, the open space northwest of the project area serves as a long-term source of suitable foraging habitat. Therefore, potential impacts to white-tailed kite foraging habitat would be less than significant.

Coastal California Gnatcatcher

Four records of Coastal California gnatcatcher are reported approximately 4.5 miles away from the project area. The buckwheat scrub and purple sage scrub communities within the project area provide moderately suitable nesting habitat for the species. However, the project area is situated at the northern extent of the species' range where occurrences are sparsely scattered. In addition, the suitable habitat within the project area is isolated from large blocks of open space, and coastal California gnatcatchers do not typically travel through urbanized areas.

If the species were to be present within the vicinity of the project area during initial vegetation clearance, the proposed project has the potential to directly (by destroying a nest) or indirectly (through removal of habitat, construction noise, dust, and other human disturbances that may cause a nest to fail) impact the species. Between October 2020 and March 2021, Rincon Consultants conducted nine non-breeding season (July 1 through March 14) surveys in accordance with USFWS protocol to determine presence/absence of coastal California gnatcatchers within the project vicinity, the details of which are included in the Coastal California Gnatcatcher Focused Survey Report contained in Appendix B of this document. No coastal California gnatcatchers were detected. Accordingly, California buckwheat scrub and purple sage scrub within the project footprint does not support a coastal California gnatcatcher territory, and its removal would not impact the species (Appendix B). Therefore, the project would result in no impact to coastal California gnatcatcher.

Nesting Birds

Migratory or other common nesting birds, while not designated as special-status species, are protected by the CFGC and Migratory Bird Treaty Act and may nest on site in California buckwheat scrub, purple sage scrub, and ornamental landscaping. Therefore, construction of the project has the potential to directly (by destroying a nest) or indirectly (through construction noise, dust, and other human disturbances that may cause a nest to fail) impact nesting birds protected under the CFGC and Migratory Bird Treaty Act. Implementation of Mitigation Measure BIO-2 would be required to maintain compliance with CFGC 3503 and the Migratory Bird Treaty Act and includes a pre-construction nesting bird survey if vegetation removal or construction occurs during the nesting bird season (typically February 1 to August 31). If active nests are identified, buffers would be implemented to minimize impacts to nesting birds.

Mitigation Measures

With implementation of the following mitigation measures, potential impacts related to special status species would be reduced to a less-than-significant level.

BIO-1 General Best Management Practices

The following general requirements shall be followed by construction personnel:

- The contractor shall clearly delineate the construction limits and prohibit any constructionrelated traffic outside those boundaries.
- Project-related vehicles shall observe a 10-mile-per-hour speed limit within the unpaved limits of construction.
- All open trenches or excavations shall be fenced and/or sloped to prevent entrapment of wildlife species.
- All food-related trash items such as wrappers, cans, bottles, and food scraps generated during project construction shall be disposed of in closed containers only and removed daily from the project site.
- No deliberate feeding of wildlife shall be allowed.
- No pets shall be allowed on the project site during construction.
- No firearms shall be allowed on the project site.
- If vehicle or equipment maintenance is necessary, it shall be performed in the designated staging areas.
- If construction must occur between dusk and dawn, all lighting shall be shielded and directed downward to minimize the potential for glare or spillover onto adjacent properties and to reduce impacts on local wildlife.
- All equipment used on site shall be properly maintained to avoid leaks of oil, fuel, or residues.
 Provisions shall be in place to remediate any accidental spills immediately.

BIO-2 Nesting Birds

Project-related activities shall occur outside of the bird breeding season (generally February 1 to August 31) to the extent practicable. If construction must occur within the bird breeding season, a nesting bird pre-construction survey shall be conducted by a qualified biologist within the disturbance footprint plus a 100-foot buffer (300-foot for raptors), where feasible, no more than three days prior to initiation of ground-disturbing activities (including, but not limited to site

preparation, vegetation clearance, grading, excavation, and trenching) within the project site. If the proposed project is phased or construction activities stop for more than one week, a subsequent pre-construction nesting bird survey shall be required prior to the start of each phase of ground-disturbing activities during bird breeding season.

Pre-construction nesting bird surveys shall be conducted during the time of day when birds are active and shall factor in sufficient time to perform this survey adequately and completely. A report of the nesting bird survey results, if applicable, shall be submitted SCV Water for review and approval prior to ground and/or vegetation disturbance activities.

If nests are found, their locations shall be flagged. An appropriate avoidance buffer ranging in size from 25 to 50 feet for passerines and up to 300 feet for raptors (depending upon the species and the proposed work activity) shall be determined and demarcated by a qualified biologist with bright orange construction fencing or other suitable flagging. Active nests shall be monitored at a minimum of once per week until it has been determined the nest is no longer being used by either the young or adults. No ground disturbance or vegetation removal shall occur within this buffer until the qualified biologist confirms the breeding/nesting is over and all the young have fledged. If project activities must occur within the buffer, they shall be conducted at the discretion of the qualified biologist. If no nesting birds are observed during pre-construction surveys, no further action would be necessary.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

Plant communities are considered sensitive if they have limited distributions, have high wildlife value, include sensitive species, or are particularly susceptible to disturbance. The CDFW ranks sensitive communities as "threatened" or "very threatened" and keeps records of their occurrences in the CNDDB. No sensitive plant communities are located at the project site. In addition, no riparian habitat is present on the project site (Appendix B). Consequently, no impact would occur.

NO IMPACT

c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No state- or federally-protected wetlands or other water features that may be considered jurisdictional by the CDFW, United States Army Corps of Engineers, or Los Angeles Regional Water Quality Control Board occur on the project site (Appendix B). Therefore, no impacts to jurisdictional waters or wetlands would occur.

NO IMPACT

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

According to the Biological Resources Assessment prepared for the project (Appendix B), it is unlikely the open space adjacent to the project site contributes significantly to wildlife movement given its isolation and adjacency to existing residential and commercial development and

transportation corridors. As a result, construction of the proposed project would not result in a substantial adverse effect on localized wildlife movement or create habitat fragmentation in the region, and it would not have a significant impact on regional wildlife movement. Therefore, direct impacts to wildlife movement as a result of project implementation would be less than significant. Upon completion of construction, the proposed groundwater treatment facility may include external safety lighting, similar to the lighting on the existing Well 205 building, which would be directed and shielded toward project facilities to minimize or avoid light spillage outside the project site. Therefore, indirect impacts to wildlife movement would also be less than significant.

LESS THAN SIGNIFICANT IMPACT

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Open Space Areas

The proposed project is situated within an area zoned Open Space (OS). Open space areas are governed by Santa Clarita Municipal Code Chapter 14.10, which prohibits certain impacts, including removal of vegetation or harassment of wildlife, without a permit granted by the City Manager. The proposed project would obtain this permit prior to project construction to maintain compliance with this local ordinance. Therefore, no impact would occur.

City of Santa Clarita General Plan

The City's General Plan Conservation and Open Space Element (2011a) contains objectives and policies for biological resources relevant to the proposed project given its location and/or proposed activities. As identified in the Biological Resources Assessment (Appendix A), these objectives and policies focus on conservation of existing natural areas; restoration of damaged natural vegetation; protection of wetlands, oak trees and other indigenous woodlands, and endangered or threatened species and habitat; and protection of biological resources in significant ecological areas and significant wildlife corridors.

The project would not impact wetlands, oak trees, or other woodlands, because these resources are not present within the project area. In addition, the project would not affect endangered or threatened species and habitat because no federal or state listed species are expected to occur within the project area. Furthermore, the project would not alter significant ecological areas or impede wildlife movement and corridors because the project is not situated within a significant ecological area and does not serve as a wildlife movement corridor or linkage (Appendix B). Therefore, the project would not conflict with policies protecting biological resources in the City of Santa Clarita General Plan. No impact would occur.

Protected Trees

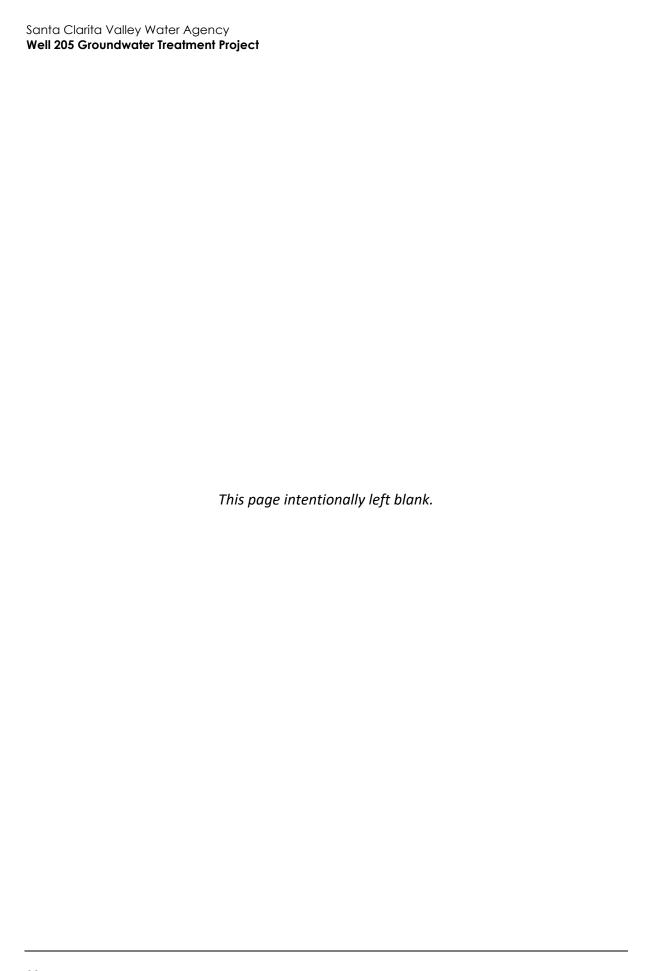
Only one tree, an ornamental pine (*Pinus* sp.), would be affected by the project. This tree is not protected by the City's Parkway Trees Ordinance (Santa Clarita Municipal Code Section 13.76.020) (Appendix B). Therefore, the project would not conflict with the City's Parkway Trees Ordinance, and no impact would occur.

NO IMPACT

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The project site is not located in an area subject to an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan (Appendix B). Therefore, no impact would occur.

NO IMPACT



5	Cultural Resource	es			
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Wo	ould the project:				
a.	Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?		•		
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?				
c.	Disturb any human remains, including those interred outside of formal cemeteries?			•	

This section provides an analysis of the project's impacts on cultural resources, including historical and archaeological resources, as well as human remains. CEQA requires a lead agency determine whether a project may have a significant effect on historical resources (PRC Section 21084.1) and tribal cultural resources (PRC Section 21074 [a][1][A-B]). A historical resource is a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources (CRHR); a resource included in a local register of historical resources; or any object, building, structure, site, area, place, record, or manuscript a lead agency determines to be historically significant (CEQA Guidelines Section 15064.5[a][1-3]).

A resource shall be considered historically significant if it:

- 1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- 2. Is associated with the lives of persons important in our past;
- 3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- 4. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, if it can be demonstrated that a project would cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. PRC Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it:

- 1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
- 2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; or

3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC Section 21083.2[a-b]).

In March 2021, Rincon Consultants, Inc. prepared a Cultural Resources Assessment in support of the project, which included a cultural resources records search at the California Historical Resources Information System South Central Coastal Information Center (SCCIC) located at California State University, Fullerton; a Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search; a pedestrian field survey; and historical topographic map and aerial imagery review. The complete Cultural Resources Assessment is contained in Appendix C of this document.

The SCCIC records search was performed to identify previously recorded cultural resources as well as previously conducted cultural resources studies within the project site and a 0.5-mile radius surrounding it. Rincon received the SCCIC cultural resources records search results on September 14, 2020. The National Register of Historic Places, the CRHR, the Office of Historic Preservation Historic Properties Directory, the California Inventory of Historic Resources, the Archaeological Determinations of Eligibility list, and historical maps were also reviewed. The SCCIC records search identified 20 cultural resources studies conducted within a 0.5-mile radius of the project site, three of which evaluated portions of the project site. The SCCIC search did not identify any previously recorded cultural resources within the project site or the surrounding 0.5-mile radius.

- a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?
- b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

The project site has been disturbed by the previous development of the existing Well 205 groundwater well, building, and appurtenant facilities. The SCCIC cultural resources records search results indicate no historical or archaeological resources have been recorded within the project site or the surrounding 0.5-mile radius (Appendix B). Rincon also reviewed historical aerials and topographic maps from HistoricAerials.com to identify potential cultural resource concerns on the project site. Historical topographic maps from 1903 to 1967 depict the project site as undeveloped land. Grading is evident in aerial imagery from 1947 to 1959. Aerial imagery from 1969 to 1994 show the project site next to the development of Valencia Boulevard with historical topographic maps showing Valencia Boulevard south of the project site beginning in 1970. Imagery from 2002 depicts the project site similar to its current condition. Cultural Resources Specialist Alexandra Madsen, MA, conducted a pedestrian field survey of the project site on September 22, 2020, and no archaeological resources were identified during the pedestrian survey (Appendix B).

Although no historical or archaeological resources are known to exist within the project site, unanticipated discoveries are a possibility during ground disturbance. In the unlikely event of an unanticipated discovery, impacts to unknown historical or archaeological resources would be potentially significant. Therefore, implementation of Mitigation Measures CR-1 and CR-2 are required to reduce impacts to a less-than-significant level.

Mitigation Measures

With implementation of the following mitigation measures, potential impacts related to historical and archaeological resources would be reduced to a less-than-significant level.

CR-1 Cultural Resources Sensitivity Training

Prior to the start of ground-disturbing activities, an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983) shall conduct cultural and tribal cultural resources sensitivity training for all construction workers involved in ground-disturbing activities. A local Native American representative shall participate in the sensitivity training and shall have the opportunity to distribute information regarding cultural resources and/or protection of cultural resources.

CR-2 Unanticipated Archaeological Resources

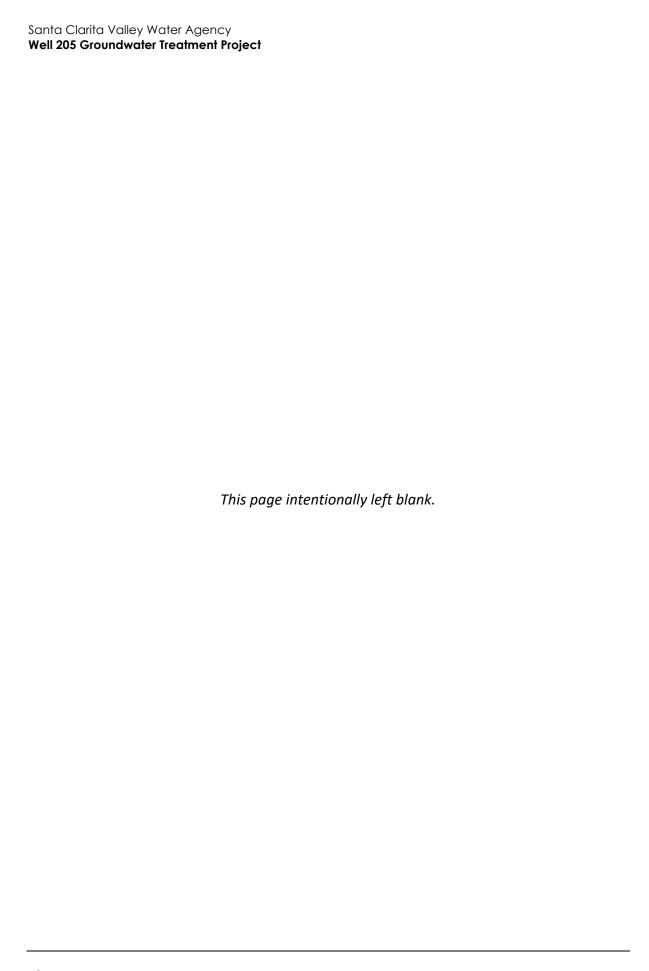
In the unlikely event archaeological resources are unexpectedly encountered during ground-disturbing activities, work within 50 feet of the find shall be halted, and an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983) shall be contacted immediately to evaluate the find. If the find is prehistoric, then a local Native American representative shall also be contacted to participate in the evaluation of the find. Impacts to the find shall be avoided to the extent feasible; methods of avoidance may include, but shall not be limited to, capping, fencing, or project redesign. If necessary, the archaeologist may be required to prepare a treatment plan for archaeological testing in consultation with the local Native American representative. If the discovery proves to be eligible for the CRHR and cannot be avoided by the project, additional work, such as data recovery excavation, may be warranted to mitigate significant impacts to historical resources.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

No cemeteries are known to exist within the project site; however, although unlikely, the discovery of human remains is always a possibility during ground-disturbing activities. If human remains are unexpectedly found, California Health and Safety Code Section 7050.5 states no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. In the event of an unanticipated discovery of human remains, the county coroner would be notified immediately. If the human remains are determined to be prehistoric, the coroner would notify the NAHC, which would determine and notify a most likely descendant. The most likely descendant would complete the inspection of the site within 48 hours of being granted access to the site. With adherence to existing regulations, impacts to human remains would be less than significant.

LESS THAN SIGNIFICANT IMPACT



6	Energy				
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Wo	ould the project:				
a.	Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?				
b.	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				•

As a state, California is one of the lowest per capita energy users in the United States, ranked 50th in the nation, due to its energy efficiency programs and mild climate (United States Energy Information Administration 2021). Electricity is primarily consumed by the built environment for lighting, appliances, and heating and cooling systems in addition to being consumed by alternative fuel vehicles. Most of California's electricity is generated in state with approximately 43 percent imported from the Northwest and Southwest in 2020 (California Energy Commission [CEC] 2022a). Approximately 33 percent of California's electricity supply in 2020 came from renewable energy sources, such as wind, solar photovoltaic, geothermal, and biomass (CEC 2022a). In 2018, Senate Bill 100 accelerated the state's Renewable Portfolio Standards Program, codified in the Public Utilities Act, by requiring electricity providers to increase procurement from eligible renewable energy and zero-carbon resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

Petroleum fuels are primarily consumed by on-road and off-road equipment in addition to some industrial processes, with California being one of the top petroleum-producing states in the nation (CEC 2022b). Gasoline is the most used transportation fuel in California with 12.6 billion gallons sold in 2020 (CEC 2021). Diesel is the second most used fuel in California with 1.7 billion gallons sold in 2020 (CEC 2021).

Energy consumption is directly related to environmental quality in that the consumption of nonrenewable energy resources releases criteria air pollutant and greenhouse gas (GHG) emissions into the atmosphere. The environmental impacts of air pollutant and GHG emissions associated with the project's energy consumption are discussed in detail in Section 3, *Air Quality*, and Section 8, *Greenhouse Gas Emissions*, respectively.

a. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Construction

Energy use during project construction would be primarily in the form of fuel consumption to operate heavy equipment, light-duty vehicles, machinery, and generators. Temporary grid power may also be provided to construction trailers or electric construction equipment. Table 7 summarizes the anticipated energy consumption from construction equipment and vehicles, including construction worker trips to and from the project site. As shown therein, project construction would require approximately 2,291 gallons of gasoline fuel and approximately 17,719 gallons of diesel fuel.

Table 7 Energy Use during Project Construction

Fuel Consumption (Gallons)		tion (Gallons)
Source	Gasoline	Diesel
Construction Equipment & Hauling Trips	-	17,719
Construction Worker Vehicle Trips	2,291	_
See Appendix A for CalEEMod outputs and Appendix D for energy calculation sheets.		

Energy use during construction would be temporary in nature, and construction equipment used would be typical of similar-sized construction projects in the region. In addition, construction contractors would be required to comply with the provisions of California Code of Regulations Title 13, Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more than five minutes, which would minimize unnecessary fuel consumption. Construction equipment would be subject to the U.S. EPA Construction Equipment Fuel Efficiency Standard (40 Code of Federal Regulations Parts 1039, 1065, and 1068), which would minimize inefficient fuel consumption. Furthermore, in the interest of cost efficiency, construction contractors would not utilize fuel in a manner that is wasteful or unnecessary. Therefore, project construction would not result in a potential impact due to wasteful, inefficient, or unnecessary consumption of energy resources, and no construction-related energy impact would occur.

Operation

As discussed under *Description of Project*, the proposed project would not increase the production capacity of the existing Well 205. However, due to the increased pressure demands of the new groundwater treatment process flow, the proposed project includes an upgraded pump head inside the Well 205 building. During operation, this well pump would require approximately 4,300 MWh of electricity per year. In addition, maintenance of the proposed project would include routine inspections and maintenance of facilities, periodic testing, and emergency repairs. Maintenance activities would occur on a daily basis, and chemical deliveries would occur once every 30 days. GAC media would be replaced approximately once every two years, and IX media would be replaced approximately once every six to nine months. Conservatively assuming maximum annual vehicle trips of 365 maintenance trips, 12 chemical trips, one GAC media replacement trip, and two IX media replacement trips, operational vehicle trips would require the consumption of energy resources in the form of approximately 338 gallons of gasoline fuels per year (see Appendix D for energy calculation sheets). However, electricity and fuel consumption would not be wasteful,

inefficient, or unnecessary because maintenance activities would only occur as necessary for water treatment system operation. In addition, the purpose of the project is to enable SCV Water to continue using the local groundwater supplies produced at Well 205. Ultimately, this would reduce the dependence of SCV Water's service area on imported potable water, which would reduce the use of energy associated with transporting imported potable water to the project area. Consequently, no operational energy impacts would occur.

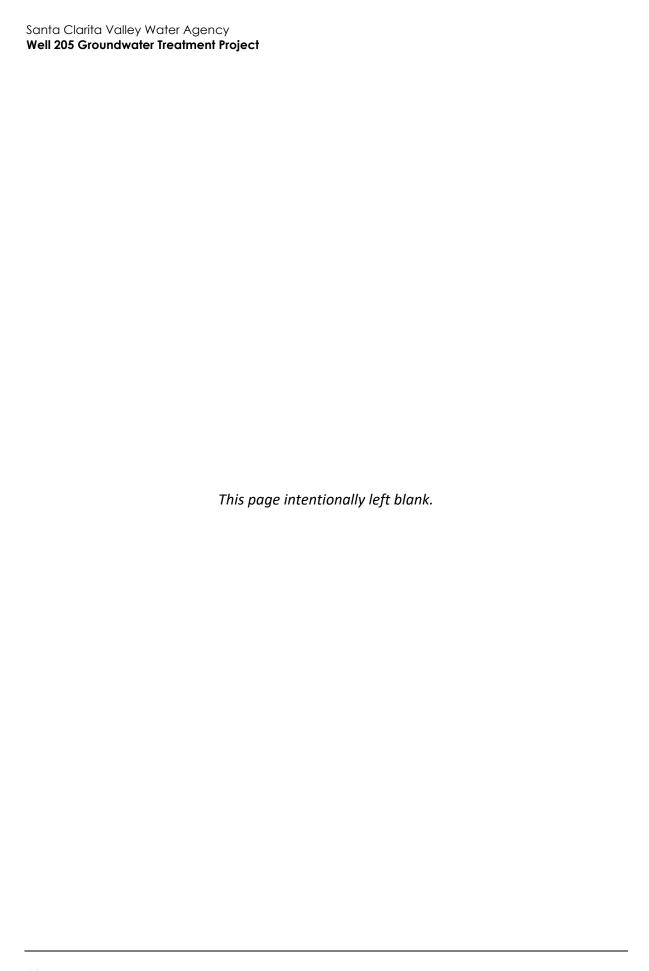
NO IMPACT

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

SCV Water has not adopted a specific renewable energy or energy efficiency plan with which the project could comply. As mentioned above, SB 100 mandates 100 percent clean electricity for California by 2045. Because the proposed project would be powered by the existing electricity grid, the project would eventually be powered by renewable energy mandated by SB 100 and would not conflict with this statewide plan.

The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Consequently, no impact would occur.

NO IMPACT



7		Geology and Soi	S			
			Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Wo	uld t	he project:				
a.	subs	ctly or indirectly cause potential stantial adverse effects, including the of loss, injury, or death involving:				
	1.	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?				
	2.	Strong seismic ground shaking?			•	
	3.	Seismic-related ground failure, including liquefaction?			•	
	4.	Landslides?			•	
b.		ult in substantial soil erosion or the of topsoil?		•		
C.	is unst unst pote land	ocated on a geologic unit or soil that estable, or that would become table as a result of the project, and entially result in on- or off-site slide, lateral spreading, subsidence, efaction, or collapse?				
d.	in Ta (199	ocated on expansive soil, as defined able 1-B of the Uniform Building Code 94), creating substantial direct or rect risks to life or property?				
e.	suppalter	e soils incapable of adequately porting the use of septic tanks or rnative wastewater disposal systems are not available for the osal of wastewater?				•
f.	pale	ctly or indirectly destroy a unique ontological resource or site or unique ogic feature?				

Overview of Geologic Setting

The project site is situated in the Santa Clarita Valley within the Transverse Ranges geomorphic province, one of 11 major provinces in the state (California Geological Survey 2002). The Transverse Ranges is a west-east-trending range extending approximately 275 miles from Point Arguello in Santa Barbara County, east to the San Bernardino Mountains, and south to the Anacapa-Santa Monica Hollywood-Raymond-Cucamonga Thrust Fault Zone. The geology of the Transverse Ranges generally consists of Proterozoic to Mesozoic intrusive igneous and metamorphic rocks and Cenozoic volcanic, marine, and terrestrial sedimentary deposits, with west-east-trending reverse faults and northwest-trending strike-slip faults (Norris and Webb 1990).

As depicted in Figure 7, the surface geology of the project site is mapped as Quaternary young (middle to late Holocene) alluvium (Qa) and Quaternary old (late Pleistocene) alluvial fan deposits (Dibblee and Ehrenspeck 1996). Middle to late Holocene alluvium (Qa), mapped within the eastern and southern portions of the project site, consists of unconsolidated and poorly sorted alluvial gravel, sand, and clay of valley areas. Late Pleistocene alluvial fan deposits (Qog), mapped within the northern and western portions of the project site, are composed of unconsolidated alluvial and high terrace sediments of gravel and sand with detritus of crystalline basement rocks and Tertiary rocks.

Although not mapped within the project boundary, exposures of the Pliocene to Pleistocene Saugus Formation are prevalent throughout the Santa Clarita Valley and may occur at shallow or unknown depth within the project site (Dibblee and Ehrenspeck 1996). The nearest exposure of the Saugus Formation is mapped approximately two miles northeast-east of the project site. Pliocene to Pleistocene Saugus Formation consists of nonmarine to marine deposits composed of moderately-indurated, tan to reddish-tan to gray-buff pebble conglomerate, sandstone, and minor siltstone (Dibblee and Ehrenspeck 1996; Winterer and Durham 1962).

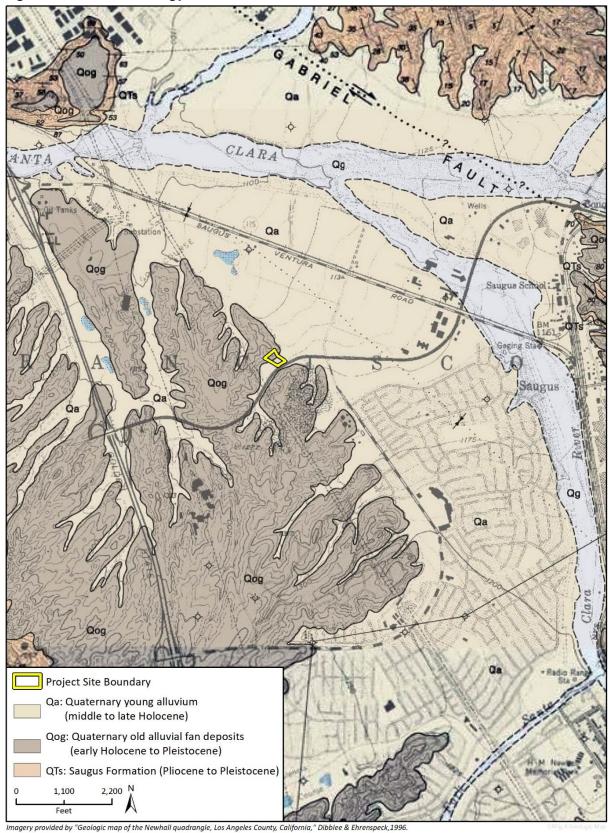
Overview of Seismic Hazards

The project site is located in Southern California, a seismically active region at the junction of the North American and Pacific tectonic plates. According to the DOC, the project site is not located in an Alquist-Priolo Fault Zone or a liquefaction zone. There are no faults present on the project site, and the closest fault to the project site is the Holser Fault, located approximately 0.5 mile to the north. The project site is located in a potential earthquake-induced landslide zone (DOC 2022b). The project site is composed of unconsolidated and semi-consolidated alluvium deposits, which may be subject to seismically-induced settlement (United States Department of Agriculture [USDA] 2022).

Overview of Soils

The USDA classifies soil on the project site as Yolo Loam with two to nine percent slopes (USDA 2022). Depth to the water table is more than six feet and has a drainage class of "Well-Drained." Yolo Loam drained soil is classified in Hydrologic Soil Group "B" and has a non-irrigated land capability classification of "2e." Frequency of flooding or ponding is identified as minimal to non-existent (USDA 2022).

Figure 7 Surface Geology



- a.1. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?
- a.2. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?
- a.3. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

The project site is not located in an Alquist-Priolo Fault Zone. In addition, there are no faults present on the project site, and the closest fault to the project site is the Holser Fault, located approximately 0.5 mile to the north (DOC 2022). Liquefaction occurs when the strength and stiffness of a soil is reduced by intense ground shaking typically associated with an earthquake in areas with a high groundwater table. According to the DOC (2022), the project site is located in a potential liquefaction zone. However, design and construction of the proposed project would conform to the current seismic design provisions of the California Building Code (CBC). The CBC incorporates the latest seismic design standards for structural loads and materials, as well as provisions from the National Earthquake Hazards Reduction Program, to mitigate losses from an earthquake and provide for the latest in earthquake safety. While the project site would be susceptible to seismic activity given its location within a seismically-active area, the proposed project would be required to minimize this risk, to the extent feasible, through the incorporation of applicable CBC standards. A large seismic event, such as a fault rupture, seismic shaking, or ground failure, could result in breakage of the proposed equipment, failure of joints, and/or leakage from the facility. In the event an earthquake compromised any project component during operation, SCV Water would temporarily shut off the facility and conduct emergency repairs as soon as feasible. Furthermore, the project does not include habitable structures and is setback approximately 100 feet from the nearest residences and would therefore not expose people to loss, injury, or death involving seismic events. Additionally, implementation of the project would not exacerbate the existing risk of seismic-related ground failure, including liquefaction, in the immediate vicinity. Furthermore, prior to project approval, geotechnical sampling and analyses would be conducted at the project site to analyze soil conditions. Project engineering design would incorporate any recommendations from the geotechnical design report, including any pertaining to seismic design parameters. Consequently, the project would not expose people or structures to potential substantial adverse effects involving fault rupture, strong seismic ground shaking, and seismic-related ground failure. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.4. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

According to the DOC (2022), the project site is located in a potential landslide zone. However, as stated above, the project does not include habitable structures and is setback approximately 100 feet from the nearest residences and would therefore not expose people to loss, injury, or death involving landslides. Additionally, implementation of the project would not exacerbate the existing risk of earthquake-induced landslides in the immediate vicinity. As stated previously, the maximum slope with Yolo Loam soil composition on the project site would be nine percent: a gentle to moderate sloping. In the event an earthquake compromised any project component due to landslides during operation, SCV Water would temporarily shut off the facility and conduct emergency repairs as

soon as possible. Because the project site is not located on or near steep slopes and the project would not introduce new infrastructure to the site that would exacerbate landslide hazards, the proposed project would not directly or indirectly cause potential adverse effects involving landslides. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project result in substantial soil erosion or the loss of topsoil?

Soil erosion or the loss of topsoil may occur when soils are disturbed but not secured or restored, such that wind or rain events may mobilize disturbed soils, resulting in their transport off the project site. Construction activities would include grading, excavation, and trenching activities, which could potentially result in erosion. As discussed in Section 10, *Hydrology and Water Quality*, erosion factors (K factors) for soils on the project site range from approximately 0.24 to 0.49, indicating moderate to high potential for sheet and rill erosion by water (USDA 2022). Additionally, spills, leakage, or improper handling and storage of substances such as oils, fuels, chemicals, metals, and other substances from vehicles, equipment, and materials used during project construction could contribute to stormwater pollutants discharged from the construction area into the existing storm drain outlet on site or leach to underlying groundwater.

Typically, construction-related stormwater pollutant discharges are regulated pursuant to the National Pollutant Discharge Elimination System (NPDES) Construction General Permit. Furthermore, the Construction General Permit requires implementation of a Stormwater Pollution Prevention Plan that outlines project-specific BMPs to control erosion. Such BMPs include the use of temporary de-silting basins, construction vehicle maintenance in staging areas to avoid leaks, and installation of silt fences and erosion control blankets. Coverage under the Construction General Permit is required for projects resulting in greater than one acre of disturbance area. The project site is approximately 1.75 acres; however, the proposed facility footprint is approximately 0.8 acre. Therefore, the disturbance area on the project site may remain under one acre, and construction activities may not be subject to the Construction General Permit requirements. As a result, impacts related to soil erosion would be potentially significant. As discussed in Section 10, Hydrology and Water Quality, Mitigation Measure HWQ-1 would reduce potential impacts associated with construction-related soil erosion by requiring implementation of stormwater pollution prevention BMPs if compliance with the Construction General Permit is not required based on the project's anticipated disturbance area upon final design. With implementation of Mitigation Measure HWQ-1, potential impacts to substantial soil erosion and the loss of topsoil would be less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

Ground subsidence and associated fissuring have occurred in Los Angeles County due to falling and rising groundwater tables. Subsidence is caused by a variety of activities, which include, but are not limited to, withdrawal of groundwater, pumping of oil and gas from underground, the collapse of underground mines, liquefaction, and hydro-compaction. Based on groundwater levels in the project area, which are anticipated to be at least six feet below ground surface (USDA 2022), construction activities are unlikely to encounter groundwater. In addition, as previously discussed, the proposed project would not increase the production capacity of Well 205. Consistent with previous operating

conditions, Well 205 would be equipped to produce up to 2,700 gpm of groundwater from the Saugus Formation of the Santa Clara River Valley Groundwater Basin, and the project would treat up to 4,360 acre-feet per year of groundwater. Therefore, the proposed project would not increase the amount of water pumped from the underlying groundwater basin as compared to previous operating conditions. Subsidence did not occur during previous operational conditions and is not expected to occur when the existing Well 205 is brought back online under the proposed project.

Although the project site is located in a seismically active area, the project is not anticipated to adversely affect soil stability or increase the potential for local or regional landslides, liquefaction, lateral spreading, or collapse. The proposed facility would be constructed adjacent to existing water production equipment on the site, and design and construction of the proposed project would conform to the current design provisions of the CBC. Furthermore, prior to project approval, geotechnical sampling and analyses would be conducted at the project site to analyze soil conditions. Project engineering design would incorporate any recommendations from the geotechnical design report, including any pertaining to grading recommendations and foundation bearing design parameters. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Soils with high concentrations of clay tend to be the most expansive. The soil on the project site is mostly comprised of loam with a maximum clay concentration of 15 percent (USDA 2022). The expansion potential for these fine sandy and sandy soil types found on alluvial fans and floodplains is very low to low. In addition, the proposed project would also be designed and constructed to meet CBC requirements. Therefore, the proposed project would not be located on expansive soils and would not introduce risk to life or property as a result of expansive soils. No impact would occur.

NO IMPACT

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

The proposed project would not include the use of septic tanks or alternative wastewater disposal systems. No impact would occur.

NO IMPACT

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The paleontological sensitivities of the geologic units underlying the project site were evaluated to determine if the proposed project would result in significant impacts to paleontological resources. The analysis was based on the results of an online paleontological locality search and review of existing information in the scientific literature concerning known fossils within geologic units mapped within the project site. Fossil collections records from the Paleobiology Database and University of California Museum of Paleontology (UCMP) online database were reviewed for known fossil localities in Los Angeles County (Paleobiology Database 2020; UCMP 2020). Based on the available information contained within existing scientific literature and the UCMP database, paleontological sensitivities were assigned to the geologic units underlying the project site. The

potential for impacts to scientifically important paleontological resources is based on the potential for ground disturbance to directly impact paleontologically sensitive geologic units. The Society of Vertebrate Paleontology (SVP) has developed a system for assessing paleontological sensitivity and describes sedimentary rock units as having high, low, undetermined, or no potential for containing scientifically significant nonrenewable paleontological resources (SVP 2010). This system is based on rock units within which vertebrate or significant invertebrate fossils have been determined by previous studies to be present or likely to be present.

A review of the museum records maintained in the UCMP online collections database identified at least 15 vertebrate fossil localities from early Holocene to late Pleistocene sedimentary deposits, which yielded numerous fossil specimens of mammalian and avian fauna, throughout Los Angeles County (UCMP 2020). Middle to late Holocene sedimentary deposits within the project site (e.g., Qa) are typically too young (i.e., less than 5,000 years old) to preserve paleontological resources and are determined to have a low paleontological sensitivity at the surface. However, exposures of older deposits/formations near the project site, and the stratigraphic setting in the vicinity are indicative that Pleistocene and Pliocene (i.e., Qog and QTs) units underlie the middle to late Holocene units mapped at the surface at unknown, but potentially shallow, depths (Dibblee and Ehrenspeck 1996). Accurately assessing the boundaries between middle to late Holocene units (i.e., Qa) and Pleistocene (i.e., Qog, QTs) or Pliocene (QTs) units is generally not possible without site-specific stratigraphic data, some form of radiometric dating, or fossil analysis. The depths at which these units become old enough to yield fossils is highly variable, but generally does not occur at depths of less than three to five feet based on both the findings of Winterer and Durham (1962) and the proximity of geologic units with high paleontological sensitivity (i.e., Qog and QTs) mapped near the project area that are underlain by middle to late Holocene alluvium (Qa) (Dibblee and Ehrenspeck 1996).

Quaternary old (early Holocene to Pleistocene) alluvial sediments have a well-documented record of abundant and diverse vertebrate fauna throughout California. Localities have produced fossil specimens of mammoth (*Mammuthus columbi*), horse (*Equus*), camel (*Camelops*), and bison (*Bison*), as well as various birds, rodents, and reptiles (Agenbroad 2003; Jefferson 1985 and 2010; Merriam 1911; Paleobiology Database 2020; Savage et. al 1954; UCMP 2020). As a result, Quaternary old (late Pleistocene) alluvial fan deposits (Qog) are assigned a high paleontological sensitivity.

The Saugus Formation has also yielded numerous terrestrial vertebrate fossils such as rabbit, deer, horse, camel, and sloth (Paleobiology Database 2020; UCMP 2020; Winterer and Durham 1962). Therefore, the Saugus Formation (QTs) is assigned a high paleontological sensitivity.

Based on the above analysis, Figure 8 shows the paleontological sensitivity of the project site and surrounding area. Ground disturbance associated with installation of concrete foundations for the proposed project may reach depths of up to six feet below ground surface. Given that the project site is mostly undeveloped, ground-disturbing activities would likely extend below the boundary between artificial fill (i.e., previously disturbed sediments) and native (i.e., previously undisturbed) sediments within the project site. If native/intact sediments or geologic units with a high paleontological sensitivity (i.e., Qog and QTs units shown in Figure 7 and Figure 8) at the surface and shallow subsurface are disturbed, impacts to unique paleontological resources could occur. If undiscovered unique paleontological resources are present, construction activities may result in the destruction, damage, or loss of these resources. Therefore, impacts to unique paleontological resources would be significant. Implementation of Mitigation Measure GEO-1 during project construction would be required to reduce potential impacts related to paleontological resources to a less-than-significant level.

Figure 8 Paleontological Sensitivity at the Project Site



Mitigation Measure

Implementation of the following measure would reduce potential impacts to unique paleontological resources to a less-than-significant level.

GEO-1 Paleontological Resources Monitoring

Prior to the commencement of project construction, a qualified paleontological monitor (i.e., a paleontologist who meets the Society of Vertebrate Paleontology [2010] standards as a Paleontological Resource Monitor) shall be retained to conduct paleontological monitoring during ground-disturbing activities (including, but not limited to site preparation, grading, excavation, and trenching) of intact (i.e., previously undisturbed) Quaternary old alluvial fan deposits (Qog) at the surface or shallow subsurface. Monitoring shall be supervised by a Qualified Paleontologist (i.e., a paleontologist who meets the Society of Vertebrate Paleontology [2010] standards as a Qualified Professional Paleontologist).

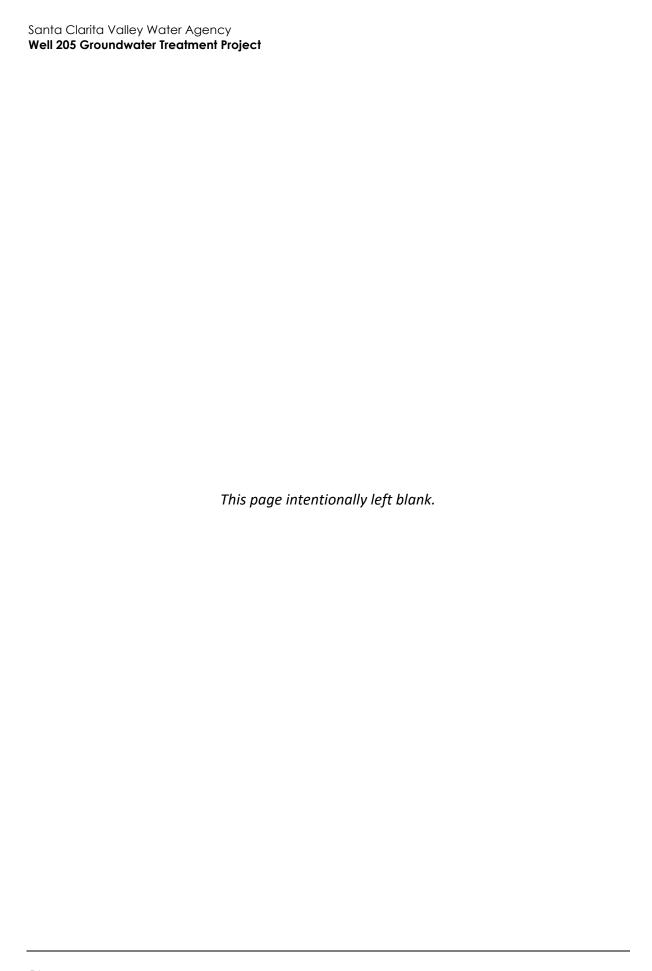
Full-time paleontological monitoring shall be conducted for all ground disturbance within project areas underlain by geologic units with high paleontological sensitivity (Qog). In addition, full-time paleontological monitoring shall be conducted for ground-disturbing activities exceeding three feet below ground surface within project areas mapped as Quaternary young alluvium (Qa). The qualified paleontological monitor shall document project-related ground-disturbing activities and their location as well as the stratigraphic context of any fossil discoveries. In accordance with Society of Vertebrate Paleontology guidelines, the paleontological monitor shall conduct initial (field) processing of sensitive Quaternary old (Pleistocene) sediment samples for small invertebrates or microvertebrate fossils (2010). To avoid construction delays, samples of matrix may need to be removed from the project area and processed elsewhere. If Quaternary old alluvial fan deposits (Qog) and Saugus Formation (QTs) are not observed at the full depth of excavations associated with the proposed project, monitoring can be discontinued. Ground-disturbing activities that impact previously disturbed sediments only do not require paleontological monitoring.

The duration and timing of the monitoring shall be determined by the Qualified Paleontologist. If the Qualified Paleontologist determines full-time or part-time monitoring is no longer warranted, he or she may recommend reducing monitoring to periodic spot-checking or may recommend that monitoring cease entirely. Monitoring shall be reinstated if any new ground disturbances of previously undisturbed areas are required, and reduction or suspension shall be reconsidered by the Qualified Paleontologist at that time.

If a paleontological resource is discovered, the monitor shall have the authority to temporarily divert construction equipment and implement a 50-foot safety buffer and equipment exclusion zone around the area of a fossil discovery until it is assessed for scientific significance and collected. Once salvaged, significant fossils shall be prepared to a curation-ready condition and curated in a scientific institution with a permanent paleontological collection (such as the Natural History Museum of Los Angeles County or University of California Museum of Paleontology).

A final report shall be prepared describing the results of the paleontological monitoring efforts associated with the project. The report shall include a summary of the field and laboratory methods, an overview of the project geology and paleontology, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. The report shall be submitted to SCV Water. If the monitoring efforts produce fossils, then a copy of the report shall also be submitted to the designated museum repository.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED



8	Greenhouse Gas	Emis	sions		
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Wo	ould the project:				
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?				
b.	Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				

Overview of Climate Change and Greenhouse Gases

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. Climate change is the result of numerous, cumulative sources of GHG emissions contributing to the "greenhouse effect," a natural occurrence which takes place in the Earth's atmosphere and helps regulate the temperature of the planet. The majority of radiation from the sun hits the Earth's surface and warms it. The surface, in turn, radiates heat back towards the atmosphere in the form of infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping into space and re-radiate it in all directions.

GHG emissions occur both naturally and as a result of human activities, such as fossil fuel burning, decomposition of landfill wastes, raising livestock, deforestation, and some agricultural practices. GHGs produced by human activities include carbon dioxide (CO_2), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emitted, referred to as "carbon dioxide equivalent" (CO_2e), which is the amount of GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane has a GWP of 30, meaning its global warming effect is 30 times greater than CO_2 on a molecule per molecule basis (Intergovernmental Panel on Climate Change [IPCC] 2021). ¹

The United Nations IPCC expressed that the rise and continued growth of atmospheric CO_2 concentrations is unequivocally due to human activities in its Sixth Assessment Report (2021). Human influence has warmed the atmosphere, ocean, and land, which has led the climate to warm at an unprecedented rate in the last 2,000 years. It is estimated that between the period of 1850

¹ The Intergovernmental Panel on Climate Change's (2021) *Sixth Assessment Report* determined that methane has a GWP of 30. However, the 2017 Climate Change Scoping Plan published by the California Air Resources Board uses a GWP of 25 for methane, consistent with the Intergovernmental Panel on Climate Change's (2007) *Fourth Assessment Report*. Therefore, this analysis utilizes a GWP of 25.

through 2019, that a total of 2,390 gigatonnes of anthropogenic CO₂ was emitted. It is likely that anthropogenic activities have increased the global surface temperature by approximately 1.1 degrees Celsius between the years 2010 through 2019 (IPCC 2021). Furthermore, since the late 1700s, estimated concentrations of CO₂, methane, and nitrous oxide in the atmosphere have increased by over 43 percent, 156 percent, and 17 percent, respectively, primarily due to human activity (U.S. EPA 2021). Emissions resulting from human activities are thereby contributing to an average increase in Earth's temperature. Potential climate change impacts in California may include loss of snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (State of California 2018).

Regulatory Framework

In response to climate change, California implemented Assembly Bill (AB) 32, the "California Global Warming Solutions Act of 2006." AB 32 required the reduction of statewide GHG emissions to 1990 emissions levels (essentially a 15 percent reduction below 2005 emission levels) by 2020 and the adoption of rules and regulations to achieve the maximum technologically feasible and costeffective GHG emissions reductions. On September 8, 2016, the Governor signed Senate Bill 32 into law, extending AB 32 by requiring the State to further reduce GHG emissions to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program and the Low Carbon Fuel Standard, and implementation of recently adopted policies and legislation, such as SB 1383 (aimed at reducing short-lived climate pollutants including methane, hydrofluorocarbon gases, and anthropogenic black carbon) and SB 100 (discussed further below). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan Update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends local governments adopt policies and locallyappropriate quantitative thresholds consistent with a statewide per capita goal of six metric tons (MT) of CO_2e by 2030 and two MT of CO_2e by 2050 (CARB 2017).

Other relevant state laws and regulations include SB 100, which supports the reduction of GHG emissions from the electricity sector by accelerating the state's Renewables Portfolio Standard Program. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

Significance Thresholds

The vast majority of individual projects do not generate sufficient GHG emissions to directly influence climate change. However, physical changes caused by a project can contribute incrementally to cumulative effects that are significant, even if individual changes resulting from a project are limited. The issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines Section 15064[h][1]). The CEQA Guidelines provide regulatory direction for the analysis and mitigation of GHG emissions appearing in CEQA documents, while giving lead agencies

the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts.

In guidance provided by the SCAQMD's GHG CEQA Significance Threshold Working Group in September 2010, SCAQMD considered a tiered approach to determine the significance of residential, commercial, and mixed-use projects. The draft tiered approach is outlined in meeting minutes dated September 29, 2010 (SCAQMD 2010).

- **Tier 1.** If the project is exempt from further environmental analysis under existing statutory or categorical exemptions, there is a presumption of less-than-significant impacts with respect to climate change. If not, then the Tier 2 threshold should be considered.
- Tier 2. Consists of determining whether or not the project is consistent with a GHG reduction plan that may be part of a local general plan, for example. The concept embodied in this tier is equivalent to the existing concept of consistency in CEQA Guidelines Section 15064(h)(3), 15125(d), or 15152(a). Under this Tier, if the proposed project is consistent with the qualifying local GHG reduction plan, it would not result in significant impacts related to GHG emissions. If there is no adopted plan, then the Tier 3 approach would be appropriate.
- Tier 3. Establishes a screening significance threshold level to determine significance. The Working Group has provided a recommendation of 3,000 MT of CO₂e per year for residential, commercial, and mixed-use projects.
- **Tier 4.** Establishes a service population threshold to determine significance. The Working Group has provided a recommendation of 4.8 MT of CO₂e per year for land use projects.

Under Tier 2, project impacts related to GHG emissions would be less-than-significant if a project is consistent with an approved local or regional plan. SCV Water has not adopted a plan for the reduction of GHG emissions; therefore, Tier 2 does not apply, and the GHG emissions analysis for the project cannot be streamlined via CEQA Guidelines Section 15183.5. Therefore, for the purposes of this analysis, the bright-line threshold developed by the SCAQMD (3,000 MT of CO₂e per year for development projects) is considered to be the best available method for determining the significance of GHG emissions associated with the proposed project.²

a. Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

The project's construction emissions and operational GHG emissions from area and mobile sources were estimated using CalEEMod version 2020.4.0 generally in accordance with the methodology outlined in Section 3, *Air Quality*. For the purposes of calculating annual GHG emissions under operational conditions, this analysis conservatively accounts for 365 maintenance trips, 12 chemical delivery trips, one GAC media replacement trip, and one IX media replacement trip per year. It was assumed 96 percent of vehicles visiting the site would be light-duty trucks (for maintenance staff) and four percent would be medium-duty vehicles (for chemical delivery and media replacement trips). Operational emissions associated with annual electricity consumption were calculated outside CalEEMod by multiplying the anticipated energy use by the carbon intensity factors of SCE-supplied electricity, which were sourced from CalEEMod.

² Because the project would neither directly nor indirectly generate new population, comparison to a per capita or per service population threshold is not appropriate. In addition, because the project would not involve an industrial stationary source requiring SCAQMD permitting, this analysis conservatively uses the lower GHG threshold for development projects of 3,000 MT of CO₂e per year instead of the higher industrial GHG threshold of 10,000 MT of CO₂e per year.

Construction Emissions

Project construction would generate GHG emissions from the operation of heavy equipment, motor vehicles, and worker trips to and from the site. As shown in Table 8, emissions from project construction would be approximately 168 MT of CO₂e total over the entire construction period, or approximately 6 MT of CO₂e per year when amortized over a 30-year period in accordance with SCAQMD recommendations.

Table 8 Estimated GHG Emissions during Construction

	Emissions (MT of CO₂e)
Project Construction	168
Amortized Over Estimated Project Lifetime (30 Years)	6 per year
MT: metric tons; CO₂e: carbon dioxide equivalent See Appendix A for CalEEMod results.	

Operational Emissions

In addition to project construction emissions, operation of the proposed project would generate GHG emissions from electricity usage, daily maintenance vehicle trips, and monthly chemical delivery trips. Table 9 presents a summary of GHG emissions associated with operation of the proposed project. As shown therein, project operation would generate approximately 784 MT of CO_2e per year.

Table 9 Estimated GHG Emissions during Operation

Emission Source	Emissions (MT of CO₂e per year)
Area Source Emissions	<1
Mobile Source Emissions	2
Electricity Emissions	782
Total	784
MT: metric tons; CO₂e: carbon dioxide equivalent See Appendix A for CalEEMod results and GHG calculations.	

Combined Annual Emissions

Table 10 summarizes the combined annual emissions of GHGs, including construction and operation of the water treatment facility. As shown therein, the project would generate approximately 790 MT of CO₂e per year with construction emissions amortized over a 30-year period pursuant to SCAQMD guidance. As discussed above, the proposed project would have a significant impact related to GHG emissions if project-related emissions would exceed 3,000 MT of CO₂e per year. The proposed project would not exceed the threshold. In addition, the purpose of the project is to enable SCV Water to continue utilizing local groundwater supplies produced at Well 205. Ultimately, the project would reduce dependence on imported potable water, which would have the benefit of reducing GHG emissions associated with energy used to transport imported potable water to SCV Water's service area. Therefore, the project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and impacts would be less than significant.

Table 10 Combined Annual Emissions of Greenhouse Gases

Emission Source	Emissions (MT of CO₂e per year)
Amortized Construction Emissions	6
Operational Emissions	784
Total	790
MT: metric tons; CO₂e: carbon dioxide equivalent See Appendix A for CalEEMod results and GHG calculations.	

LESS THAN SIGNIFICANT IMPACT

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

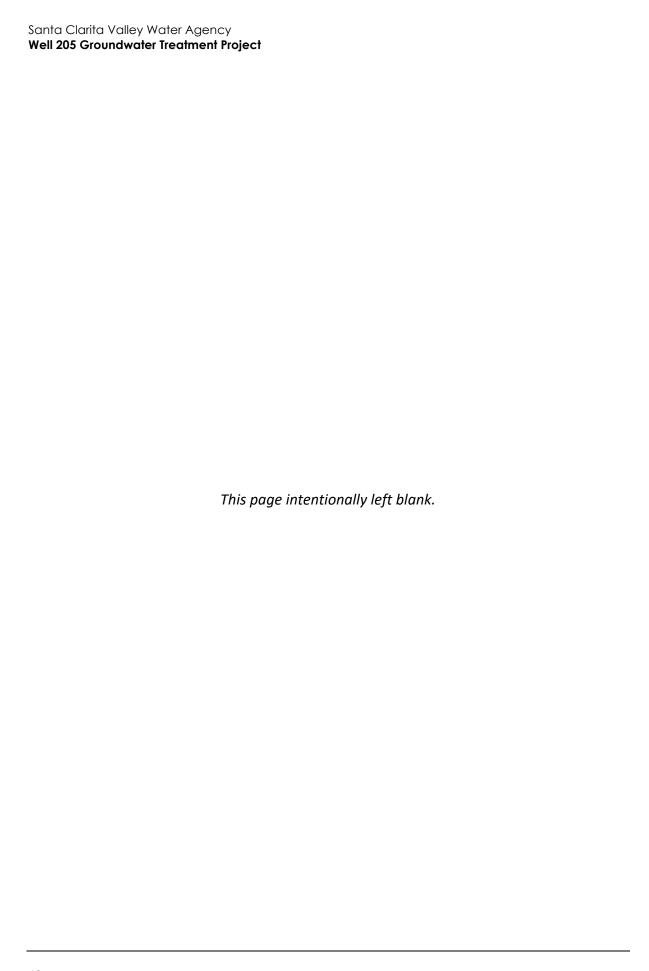
As discussed above, SCV Water does not have a GHG reduction plan; therefore, there are no local GHG reduction plans that would apply to the proposed project. Therefore, the primary applicable plan for reducing GHG emissions is CARB's 2017 Scoping Plan. One of the primary sources of GHG emissions associated with the pumping, conveyance, treatment, and distribution of water and wastewater is the use of energy. The 2017 Scoping Plan also points to groundwater remediation as a means of "meeting new water demands and sustaining prosperity." The 2017 Scoping Plan acknowledges that "the water-energy nexus provides opportunities for conservation of these natural resources as well as reductions of GHG emissions" (CARB 2017). Statewide emissions reduction strategies for the water sector are aimed at reducing the energy intensity of water, which is "the amount of energy required to take a unit of water from its origin (such as a river or aquifer) and extract and convey it to its end use" (CARB 2017).

The following goals from the 2017 Scoping Plan would be applicable to the proposed project:

- Develop and support more reliable water supplies for people, agriculture, and the environment, provided by a more resilient, diversified, sustainably managed water resources system with a focus on actions that provide direct GHG reductions.
- Reduce the carbon footprint of water systems and water uses for both surface and groundwater supplies through integrated strategies that reduce GHG emissions while meeting the needs of a growing population, improving public safety, fostering environmental stewardship, aiding in adaptation to climate change, and supporting a stable economy.

As discussed above, the purpose of the project is to enable SCV Water to use local groundwater supplies produced at Well 205 by providing an additional level of treatment to ensure a safe, reliable water supply. Ultimately, this would reduce dependence on imported potable water, which would have the benefit of reducing GHG emissions associated with energy used to transport imported potable water to the project area. Furthermore, the majority of project-related GHG emissions would be generated by electricity used to power the proposed groundwater pump. Therefore, as the requirements of the State's Renewables Portfolio Standard continue to phase in through 2045, annual GHG emissions generated by project operation would decrease correspondingly. As a result, the project would be consistent with the State's long-term climate goals and strategies as outlined in the 2017 Scoping Plan, and no impact would occur.

NO IMPACT



Hazards and Hazardous Materials Less than Significant **Potentially** with Less than Significant Mitigation **Significant** Impact Incorporated **Impact** No Impact Would the project: a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school? d. Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? e. For a project located in 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 or excessive noise for people residing or working in the project area? Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

- a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Construction of the proposed project would temporarily increase the transport and use of hazardous materials in the project area through the operation of vehicles and equipment. Such substances include diesel fuel, oil, solvents, and other similar materials brought onto the construction site for use and storage during the construction period. These materials would be contained within vessels specifically engineered for safe storage and would not be transported, stored, or used in quantities that would pose a significant hazard to the public or construction workers themselves. In addition, project construction activities would comply with all relevant regulations, including the enforcement of hazardous materials transportation regulations and implementation of BMPs.

Ground-disturbing activities associated with project construction could cause an accidental upset or release of hazardous materials, such as vehicle and equipment fuels, if they are not properly stored and secured. If such conditions cause a release of hazardous materials into the environment, potential impacts to the public or the environment could occur. To provide an additional level of safety and reduce potential construction-related impacts to a less-than-significant level, Mitigation Measure HAZ-1 would be required.

Operation and maintenance of the proposed project would involve the use of water treatment chemicals including sodium hypochlorite (bleach) and liquid ammonium sulfate. The chemicals would be stored in the proposed chemical building in recessed concrete double-containment and double-walled chemical tanks, and the chemical building would be locked. These protective project features would minimize the potential for project operation to create a significant hazard to the public or the environment through the routine transport, use, and disposal of hazardous materials and prevent reasonably foreseeable upset and accident conditions from releasing hazardous materials into the environment. Therefore, impacts related to hazardous materials used during project operation would be less than significant.

Mitigation Measures

With implementation of the following mitigation measure, potential impacts related to hazardous materials would be less than significant.

HAZ-1 Hazardous Materials Management and Spill Control Plan

Before construction begins, the construction contractor shall develop and implement a Hazardous Materials Management and Spill Control Plan (HMMSCP) that includes a project-specific contingency plan for hazardous materials and waste operations. The HMMSCP shall establish policies and procedures consistent with applicable codes and regulations, including but not limited to the California Building and Fire Codes, as well United States Department of Labor Occupational Safety and Health Administration and California Division of Occupational Safety and Health regulations. The HMMSCP shall articulate hazardous materials handling practices to prevent the accidental spill or release of hazardous materials.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

The nearest school to the project site is Valencia Valley Elementary, located at 26301 Carrizo Drive in Valencia, approximately 0.8 mile southeast of the project site. Therefore, the project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. No impact would occur.

NO IMPACT

d. Would the project be located on a site that is included on a list of hazardous material 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?

Government Code Section 65962.5 requires the California Environmental Protection Agency develop an updated Cortese List. The California Department of Toxic Substance Control (DTSC) is responsible for a portion of the information contained in the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information for the Cortese List. The analysis for this section included a review of the following resources on February 18, 2022 to provide hazardous material release information:

- State Water Resources Control Board (SWRCB) GeoTracker database (SWRCB 2022)
- DTSC EnviroStor database (DTSC 2022)

Based on review of these databases, the project site is not included on existing lists of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The SWRCB lists one leaking underground storage tank (LUST) site approximately 900 feet east of the site at 24301 Valencia Boulevard: a Shell Service Station (SWRCB 2022). However, the case was completed and closed on October 9, 2017. Therefore, the project site is not included on any lists of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and no impact would occur.

NO IMPACT

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

The closest public or public use airport to the project site is the Whiteman Airport, located approximately 14 miles southwest of the project site. The project site is not located within an airport land use plan or within two miles of a public or public use airport. As a result, the project would have no impact related to safety hazards or excessive noise for people residing or working in the project area due to proximity to an airport.

NO IMPACT

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The City of Santa Clarita maintains a Local Hazard Mitigation Plan (LHMP) that is updated and adopted every five years (City of Santa Clarita 2021). The LHMP sets forth hazard mitigation strategies along with action items to help mitigate and combat various threats such as wildfire, drought, earthquakes, landslides, extreme heat, cyber-attacks, energy disruption, floods, and

terrorism. Construction of the proposed groundwater treatment facility would not require temporary lane or road closures that would impede emergency response implemented under the LHMP. In addition, all construction activity and equipment staging would occur on the project site. Furthermore, operational activities associated with the proposed project would occur solely on the project site and would not interfere with emergency response. Therefore, the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, and no impact would occur.

NO IMPACT

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

According to the California Department of Forestry and Fire Protection (CAL FIRE), the project site is not located in a Very High Fire Hazard Severity Zone (VHFHSZ) (CAL FIRE 2022). Nevertheless, the proposed facility would be located adjacent to brush-covered open space vegetated with native plant communities, which are highly combustible. Project operation would not involve potentially flammable activities. However, the wildland-urban interface could create the potential for incidents of fire during project construction. Potential ignition sources may include sparks from exhaust pipes, discarded cigarette butts, contact of mufflers with dry grass, other sources of sparks or flame, and spills or releases of flammable materials such as gasoline. Therefore, impacts related to wildland fires during project construction would be potentially significant, and implementation of Mitigation Measure HAZ-1 would be required.

Mitigation Measure

With implementation of the following mitigation measure, the potential impacts related to wildland fires during project construction would be reduced to a less-than-significant level.

HAZ-2 Fire Prevention Measures

The following measures shall be implemented during project construction:

- All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other such activities shall be restricted to designated areas within the fenced project impact limits. These designated areas shall be located in previously compacted and disturbed areas to the maximum extent practicable in such a manner as to prevent runoff from entering existing native vegetation areas. These areas shall be clearly designated in the construction plans.
- Spark arrestors shall be utilized on earth-moving and portable construction equipment.
- The construction contractor(s) shall maintain fire suppression equipment, including a water truck with adequate hoses for fire control, a serviceable round point shovel with an overall length of not less than 46 inches, and a serviceable fire extinguisher fully equipped and ready for use at the immediate area, when operating on the project site.
- Smoking shall be allowed only in designated areas equipped with sand boxes for the disposal of cigarette butts.
- No motors, engines, stationary equipment, or welding equipment shall operate within 10 feet of flammable vegetation material.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

10 Hydrology and Water Quality Less than Significant **Potentially** with Less than Significant Mitigation **Significant Impact** Incorporated **Impact** No Impact Would the project: a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable П groundwater management of the basin? c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) Result in substantial erosion or siltation on- or off-site; (ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; (iii) 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; or (iv) Impede or redirect flood flows? d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Hydrologic Setting

The project site is located in the South Coast Hydrologic Region, which covers approximately 10,600 square miles of watersheds draining to the Pacific Ocean. The South Coast Hydrological Region includes all of Orange County, most of San Diego and Los Angeles Counties, and parts of Riverside, San Bernardino, and Ventura Counties. The region is bound by the Transverse Ranges to the north, the San Jacinto Mountains and low-lying Peninsular Range to the east, and the international boundary with Mexico to the south (California Department of Water Resources [DWR] 2003).

The project site is located in the approximately 1,030-square mile Santa Clara River Watershed and drains to Reach 6 of the Santa Clara River. The project site is located approximately 0.75 mile southwest of the confluence of the Santa Clara River and South Fork Santa Clara River, approximately 42 miles northeast of the Pacific Ocean at the mouth of the Santa Clara River, and approximately 26 miles north of the Pacific Ocean at Santa Monica Bay. The Santa Clara River Watershed, including the project site, is under the jurisdiction of the Los Angeles Regional Water Quality Control Board (RWQCB) (Region 4). The Los Angeles RWQCB sets water quality objectives and monitors surface water quality through the implementation of the Water Quality Control Plan for the Los Angeles Region (Basin Plan).

The project site overlies the East Sub-Basin of the Santa Clara River Valley Groundwater Basin (Basin 4-4.07). Within the sub-basin, the project site overlies the Saugus Formation, consisting of poorly consolidated sandstone and siltstone (DWR 2006). Regional groundwater quality is characterized by elevated concentrations of total dissolved solids and nitrate, with concentrations of total dissolved solids ranging from approximately 500 to 900 milligrams per liter in water produced from the Saugus Formation (DWR 2006). In 2017, the Santa Clarita Water Division, Newhall County Water District and Castaic Lake Water Agency (all now part of SCV Water), County of Los Angeles, City of Santa Clarita, and Los Angeles County Waterworks District Number 36 formed the Santa Clarita Valley Groundwater Sustainability Agency (GSA) to implement the planning requirements of the Sustainable Groundwater Management Act (SGMA) for the Santa Clara River Valley East Sub-basin (DWR 2022). The sub-basin is designated a high priority basin by DWR; the Santa Clara River Valley East Groundwater Subbasin Groundwater Sustainability Plan was adopted in January 2022.

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Construction

Grading, excavation, and other construction activities associated with the project could adversely affect water quality due to erosion resulting from exposed soils and the generation of water pollutants, including trash, construction materials, and equipment fluids. Soil disturbance associated with site preparation and grading activities would result in looser, exposed soils, which are more susceptible to erosion. Erosion factors (K factors) for soils on the project site range from approximately 0.24 to 0.49, indicating moderate to high potential for sheet and rill erosion by water (USDA 2022). Additionally, spills, leakage, or improper handling and storage of substances such as oils, fuels, chemicals, metals, and other substances from vehicles, equipment, and materials used during project construction could contribute to stormwater pollutants or leach to underlying groundwater.

Typically, construction-related stormwater pollutant discharges are regulated pursuant to the NPDES Construction General Permit, which requires visual monitoring of stormwater and non-

stormwater discharges; sampling, analysis, and monitoring of non-visible pollutants; and compliance with all applicable water quality standards established for receiving waters potentially affected by construction discharges. Furthermore, the Construction General Permit requires implementation of a Stormwater Pollution Prevention Plan that outlines project-specific BMPs to control erosion. Such BMPs include the use of temporary de-silting basins, construction vehicle maintenance in staging areas to avoid leaks, and installation of silt fences and erosion control blankets. Coverage under the Construction General Permit is required for projects resulting in greater than one acre of disturbance area. As described under *Description of Project*, the project site is approximately 1.75 acres, while the proposed facility footprint is approximately 0.8 acre. Therefore, disturbance area on the project site may remain under one acre, and construction activities may not be subject to the Construction General Permit requirements. Therefore, construction-related impacts to water quality would be potentially significant, and implementation of Mitigation Measure HWQ-1 would be required to reduce impacts to a less-than-significant level.

Operation

Existing impervious surfaces on the project site include the Well 205 structure and a sidewalk along the southern edge of the project site near Valencia Boulevard. The project would increase impervious surface area on the project site due to the construction of the proposed treatment facility, including a chemical building, water tanks, pumps, and treatment equipment, as well as paved surfaces allowing for truck access to the facility. Increased impervious area on the project site could result in increased stormwater runoff flow and volume, which can carry pollutants to downstream water bodies and adversely affect water quality. Common pollutants associated with urban development that could be discharged during operation of the project include automotive chemicals and metals that accumulate on the circulation and parking areas, trash, debris, and sediments. Additionally, the project would involve storage of common water treatment chemicals, including sodium hypochlorite, and liquid ammonium sulfate which, if not properly stored, could pollute runoff and degrade surface and groundwater quality.

Project operation would not involve ground disturbance, which would limit the potential for off-site migration of sediment and adsorbed pollutants in runoff. The project would generally preserve onsite drainage patterns, with water continuing to flow from higher elevations in the northern and western portions of the site toward a storm drain inlet near the site's eastern border. As described under *Description of Project*, a portion of the project site would be paved to allow for truck ingress and egress. While this paved area would accommodate daily maintenance trips, the project does not include an extensive parking lot facility where chemicals and pollutants from many vehicles would be expected to accumulate. The rest of the facility footprint would be covered in crushed rock or decomposed granite, reducing the extent of impervious surface cover and allowing for stormwater infiltration. Furthermore, treatment chemicals on site would be stored in recessed concrete double-containment and double-walled chemical tanks, and the chemical building would be locked. Such measures would minimize the potential for water quality impacts associated with leaching or runoff of chemicals.

Given the nominal increase in impervious surface area proposed on site and the fact chemicals would be stored within locked structures in double-containment, project operation would not violate any water quality standards, waste discharge requirements, or otherwise substantially degrade water quality. Impacts would be less than significant.

Mitigation Measures

With implementation of the following mitigation measure, potential impacts related to degradation of surface or groundwater quality during project construction would be reduced to a less-than-significant level.

HWQ-1 Erosion Control and Stormwater Pollution Prevention

Upon final design, if the project disturbance area does not exceed one acre and the project is not subject to the requirements of the NPDES Construction General Permit, then the following erosion control and stormwater pollution prevention measure shall be implemented during project construction:

- Excavation shall be limited to the dry season of the year (i.e., April 15 to November 1) to the extent practicable.
- Silt fencing, straw bales composed of rice straw (that are certified to be free of weed seed), fiber rolls, gravel bags, mulching erosion control blankets, soil stabilizers, and/or storm drain filters shall be used, in conjunction with other methods, to prevent erosion throughout the entire project site.
- Temporary berms and sediment basins shall be constructed and maintained to avoid unnecessary siltation into the existing on-site storm drain inlet during construction activities.
- Temporary stockpiling of excavated material shall be minimized. Excavated material shall be stockpiled in areas where it cannot enter the storm drain system. Available stockpiling sites at the project site shall be determined prior to the start of construction.
- Upon completion of project construction, all exposed soils present in and around the project site shall be stabilized within seven days. Exposed soils shall be mulched to prevent sediment runoff and transport. All mulches, except hydro-mulch, shall be applied in a layer not less than two inches deep. All exposed soils and fills shall be revegetated with deep-rooted, native, drought-tolerant species to minimize erosion potential. Geotextile binding fabrics shall be used, if necessary, to hold slope soils until vegetation is established.
- An adequate supply of erosion control materials (gravel, straw bales, shovels, etc.) shall be maintained on site to facilitate a quick response to unanticipated storm events or emergencies.
- Construction equipment shall be inspected daily for leaks of oil, lubricants, or other potential stormwater pollutants. Plastic shall be placed over any ground surface where fueling or equipment maintenance is to occur. Drip pans shall be placed under equipment parked on site.

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b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The proposed project consists of the construction and operation of groundwater treatment infrastructure. Well 205 would be equipped to produce up to 2,700 gpm of groundwater from the Saugus Formation of the Santa Clara River Valley East sub-basin. This groundwater production would match historical production from Well 205 and would not increase production capacity of the well. Furthermore, the project does not include construction of residential, commercial, industrial, or other development that would generate new water demand requiring increased groundwater extraction.

The project site is largely undeveloped, with minimal impervious surfaces associated with the existing Well 205 structure and sidewalk. The project would increase impermeable surface on site due to the construction of the proposed chemical buildings, water tanks, and paved truck parking area. Consequently, the project may increase the amount of surface runoff and incrementally reduce groundwater recharge. However, the approximately 0.8-acre facility footprint accounts for a marginal amount of total recharge area in the approximately 66,200-acre Santa Clara River Valley East sub-basin. Furthermore, stormwater runoff would be directed to the existing storm drain inlet on the site's eastern border, ultimately discharging to the Santa Clara River, where additional groundwater recharge opportunity exists. As a result, impacts related to groundwater supplies and recharge would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- c.(i) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?
- c.(ii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?
- c.(iii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would 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?
- c.(iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?

The project would generally preserve drainage patterns on site, with water continuing to flow from higher elevations in the northern and western parts of the site toward an existing storm drain inlet near the site's eastern border. The project would not alter the course of a stream or river because the project site contains no such features. However, the project would alter site drainage through the addition of impervious surfaces, which may increase stormwater runoff volume and flow. The increase in impervious surface would be nominal, resulting primarily from the addition of the approximately 612-square-foot chemical building, water tanks and pumps, and a paved entrance/exit for trucks. Paving would be limited to areas where a truck would drive. The rest of the facility footprint would be covered in crushed rock or decomposed granite, allowing for stormwater infiltration and thereby reducing potential for downstream flooding, erosion/siltation, or exceedances of the stormwater drainage system capacity.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, the project site is located in Zone D, indicating an area of undetermined flood hazard (FEMA 2008, Map 06037C0815F). However, the project site is not located in a low-, medium-, or high-risk special flood hazard zone identified in the Santa Clarita General Plan Safety Element (City of Santa Clarita 2011a). Therefore, project site is not located in a floodplain, and the project would not divert or redirect flood flows.

Given that the project would generally preserve existing drainage patterns on site, would not alter the course of a stream or river, and would not divert or redirect flood flows, potential impacts related to the alteration of the site's drainage pattern would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

As discussed above, the project site is designated Zone D on the most recent FEMA Flood Insurance Rate Map, indicating an area of undetermined flood hazard (FEMA 2008). However, the project site is located outside of special flood hazard zones identified in the Santa Clarita General Plan Safety Element (City of Santa Clarita 2011a). The project site is approximately 26 miles from the Pacific Ocean, separated by the Santa Susana and Santa Monica mountain ranges, and not subject to tsunami risk. The nearest inland surface water body that may be subject to risk of a seiche is Castaic Reservoir, approximately 7.6 miles to the north. Given the distance to this water body, the occurrence of a seiche would not affect the project site. In addition, the project site is outside of the dam failure inundation zone for both Castaic Reservoir and Bouquet Reservoir (City of Santa Clarita 2011a). Consequently, because the project site is not located within flood, tsunami, seiche, or dam failure inundation zones, the project would not risk release of pollutants due to inundation, and no impact would occur.

NO IMPACT

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Water Quality Control Plan

The Los Angeles RWQCB Basin Plan designates beneficial uses for surface waters in the Los Angeles region and associated water quality objectives to fulfill such uses. The project site is within the Santa Clara River watershed and drains to Reach 6 of the Santa Clara River. Reach 6 and all downstream reaches have designated beneficial uses of Municipal and Domestic Supply (potential), Industrial Service Supply, Industrial Process Supply, Agricultural Supply, Groundwater Recharge, Freshwater Replenishment, Warm Freshwater Habitat, Wildlife Habitat, Rare, Threatened and Endangered Species, Wetland Habitat, Water Contact Recreation, and Non-contact Water Recreation (Los Angeles RWQCB 2020). Multiple reaches of the Santa Clara River downstream of the project site are listed as impaired for numerous pollutants. Table 11 summarizes impairments for all downstream reaches of the Santa Clara River, including the Santa Clara River estuary.

³ Santa Clara River Reach 4B and downstream reaches also have a designated beneficial use of Migration of Aquatic Organisms. Santa Clara River Reaches 1 and 2 also have a designated beneficial use of Cold Freshwater Habitat.

Table 11 Water Quality Impairments for Downstream Reaches of the Santa Clara River

Santa Clara River Reach	Impairments
Reach 6 (West Pier Highway 99 Bridge to Bouquet Canyon Road)	Chloride, Chlorpyrifos, Temperature, Toxicity
Reach 5 (Blue Cut Gaging Station to West Pier Highway 99 Bridge)	Chloride, Indicator Bacteria, Iron, Trash
Reach 4B (Piru Creek to Blue Cut Gaging Station)	Not impaired
Reach 4A (A Street [Fillmore] to Piru Creek)	Trash
Reach 3 (Freeman Diversion to A Street [Fillmore])	Chloride, Indicator Bacteria, Selenium, Total Dissolved Solids, Toxicity, Trash
Reach 2 (Highway 101 Bridge to Freeman Diversion)	Not impaired
Reach 1 (Estuary to Highway 101 Bridge)	Dissolved Oxygen, pH, Toxicity, Trash
Santa Clara River Estuary	Ammonia, ChemA, ¹ Indicator Bacteria, Toxaphene, Toxicity
$^{1}\mbox{ChemA}$ refers to the sum of the chemicals aldrin, dieldrin, chlordane, endrin toxaphene.	, heptachlor, heptachlor epoxide, lindane, endosulfan, and

Source: SWRCB 2019

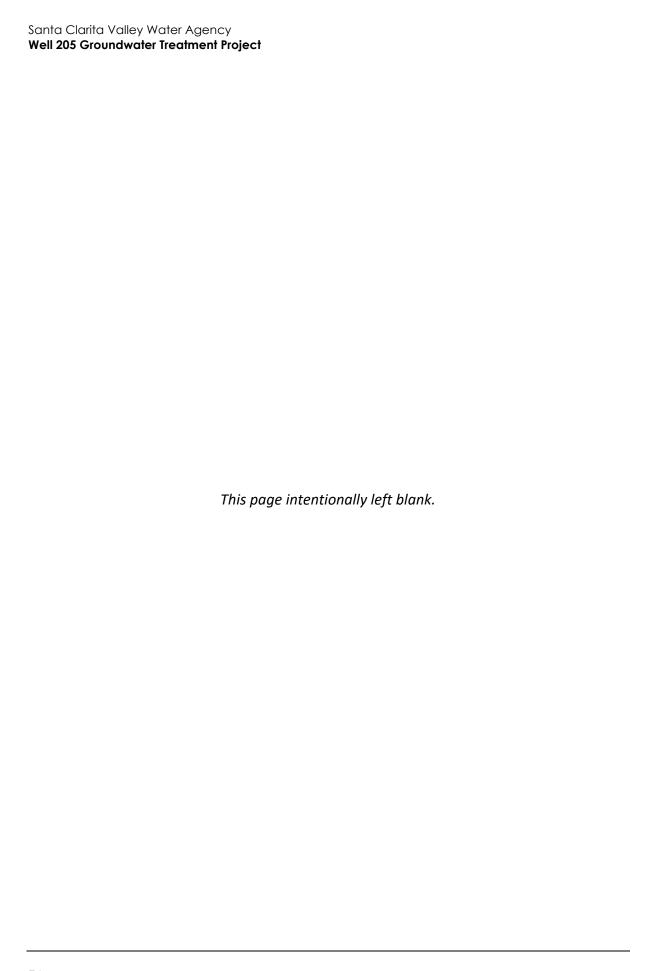
As described above, the project would implement stormwater BMPs to minimize potential temporary, construction-related water quality impacts pursuant to Mitigation Measure HWQ-1. Furthermore, project operation would not involve ground disturbance that would contribute to runoff of sediment or sediment-bound pollutants, and the project does not involve septic systems, pet parks, agricultural land, or other land uses commonly associated with high concentrations of nutrients, indicator bacteria, or chemical toxicity. Water treatment chemicals would be stored on site in locked buildings with double-containment, reducing potential for such chemicals to impair local water bodies. Therefore, the project would not exacerbate existing impairments to the Santa Clara River and would not impair existing or potential beneficial uses of nearby water bodies with implementation of Mitigation Measure HWQ-1. As such, the project would not conflict with or obstruct implementation of the Basin Plan with mitigation incorporated.

Sustainable Groundwater Management Plan

The project site overlies the Saugus Formation of the Santa Clara River Valley Groundwater Basin, East Sub-basin. The Santa Clarita Valley GSA, consisting of representatives from SCV Water, County of Los Angeles, City of Santa Clarita, and Los Angeles County Waterworks District Number 36, oversees management of the sub-basin and is in the process of preparing a GSP pursuant to the requirements of SGMA. The GSP governing the Santa Clara River Valley Groundwater Basin, East Sub-basin was adopted in January 2022 and is titled *Santa Clara River Valley East Groundwater Subbasin Groundwater Sustainability Plan*.

The project would involve treatment of impaired groundwater and proposes no increase in the historical production capacity of Well 205. Furthermore, the project does not propose residential, commercial, industrial, or other land uses that would increase water demand and require additional groundwater extraction. As such, the project would not increase groundwater extraction beyond previous operating conditions and, therefore, would not conflict with or obstruct implementation of the GSP. Impacts related to the GSP would be less than significant.

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11 Land Use and Planning				
	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
ould the project:				
Physically divide an established community?				•
Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				
	Physically divide an established community? Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an	Potentially Significant Impact auld the project: Physically divide an established community? Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an	Potentially Significant with Mitigation Impact Flags a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an	Potentially Significant With Mitigation Impact Flags than Significant With Mitigation Incorporated Impact Flags a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an

a. Would the project physically divide an established community?

The proposed project would consist of a groundwater treatment facility sited alongside an existing groundwater well. All project activities, construction staging, and ground disturbance would occur within the existing project site. Therefore, project facilities would not physically divide an established community. No impact would occur.

NO IMPACT

b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The proposed project would be located at the existing Well 205 site on APN 2861-066-002, which is located on Valencia Boulevard near McBean Parkway in Santa Clarita and is zoned Open Space. Existing public roads surrounding the project site would be utilized to provide construction and operational access to the site.

Pursuant to California Government Code 53091, the building and zoning ordinances of a county or city do not apply to the location or construction of facilities for the production, storage, or transmission of water, wastewater, or electrical energy by a local agency. The project would entail the construction and operation of a new groundwater treatment facility on the existing Well 205 site. Therefore, the building and zoning ordinances of the City of Santa Clarita would not apply to the proposed project, and the project is only evaluated for consistency with the City of Santa Clarita General Plan.

The Santa Clarita General Plan identifies objectives and policies to maintain public infrastructure and provide clean water for Valley residents and businesses. The proposed project's consistency with applicable General Plan goals, objectives, and policies is described in Table 12. As shown therein, the proposed project would be consistent with applicable goals, policies, and objectives in the Santa Clarita General Plan. Furthermore, the project would actively support the City's goals, policies, and objectives related to obtaining an adequate supply of clean water to meet local demands. Therefore, the project would not cause a significant environmental impact due to a

Santa Clarita Valley Water Agency Well 205 Groundwater Treatment Project

conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and no impact would occur.

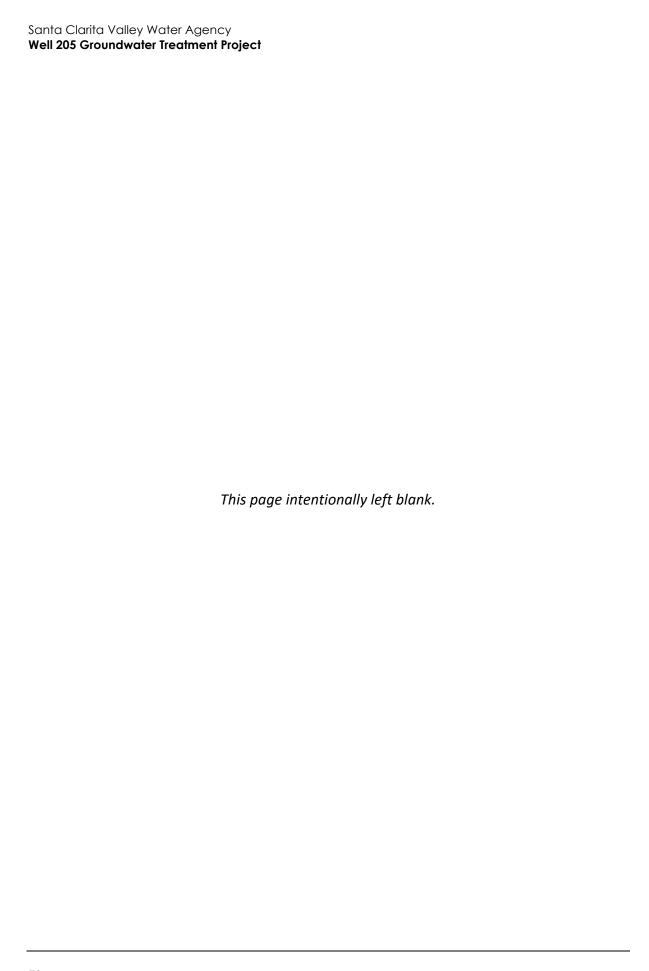
Table 12 General Plan Consistency

General Plan Goal or Policy	Proposed Project Consistency
Objective LU 7.2. Ensure an adequate water supply to meet the demands of growth.	Consistent. The proposed project would enable SCV Water to reactivate Well 205 and provide a reliable source of local water supply.
Policy LU 7.3.4. Implement best management practices for erosion control throughout the construction and development process.	Consistent. As discussed in Section 10, <i>Hydrology and Water Quality</i> , the proposed project would implement erosion control BMPs during construction activities.
Policy CO 1.4.2. In cooperation with other appropriate agencies, abate or remediate known areas of contamination and limit the effects of and such areas on public health.	Consistent. The proposed project involves a groundwater treatment facility for treatment of perchlorate and other groundwater contaminants at the existing Well 205 site.
Goal CO 4. An adequate supply of clean water to meet the needs of present and future residents and businesses, balanced with the needs of natural ecosystems.	Consistent. The proposed project would enable SCV Water to reactive Well 205 and treat groundwater to provide a local supply of clean water.
Source: City of Santa Clarita 2011a	

12	2 Mineral Resource	es			
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Wo	ould the project:				
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				
b.	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land				
	use plan?				

- a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?
- b. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

According to the Santa Clarita General Plan Environmental Impact Report (2011b), the project site is not located in a mineral resources zone. In addition, the site is not located in a zone of oil and natural gas extraction and production (City of Santa Clarita 2011b). No mines or quarries exist near the project site. Additionally, the site is zoned OS, which precludes mineral extraction activities. Consequently, the proposed project would not result in the loss of availability of a known mineral resource or a locally important mineral resource recovery site. No impacts would occur.



13	3 Noise				
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Wo	ould the project result in:				
a.	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				
b.	Generation of excessive groundborne vibration or groundborne noise levels?			•	
C.	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				-

Overview of Noise and Vibration

Noise

Sound is a vibratory disturbance created by a moving or vibrating source, which is capable of being detected by the hearing organs. Noise is defined as sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and, in the extreme, hearing impairment (California Department of Transportation [Caltrans] 2013).

Noise levels are commonly measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels so that they are consistent with the human hearing response, which is most sensitive to frequencies around 4,000 Hertz and less sensitive to frequencies around and below 100 Hertz. Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used to measure earthquake magnitudes. A doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; dividing the energy in half would result in a 3 dB decrease (Caltrans 2013).

Human perception of noise has no simple correlation with sound energy. The perception of sound is not linear in terms of dBA or in terms of sound energy. Two sources do not "sound twice as loud" as

one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA, increase or decrease (i.e., twice the sound energy); that a change of 5 dBA is readily perceptible (eight times the sound energy); and that an increase (or decrease) of 10 dBA sounds twice (half) as loud (10.5 times the sound energy) (Caltrans 2013).

Sound changes in both level and frequency spectrum as it travels from the source to the receiver. The most obvious change is the decrease in level as the distance from the source increases. The manner by which noise reduces with distance depends on factors such as the type of sources (e.g., point or line, the path the sound will travel, site conditions, and obstructions). Noise levels from a point source typically attenuate, or drop off, at a rate of 6 dBA per doubling of distance (e.g., construction, industrial machinery, ventilation units). Noise from a line source (e.g., roadway, pipeline, railroad) typically attenuates at about 3 dBA per doubling of distance (Caltrans 2013). The propagation of noise is also affected by the intervening ground, known as ground absorption. A hard site, such as a parking lot or smooth body of water, receives no additional ground attenuation and the changes in noise levels with distance (drop-off rate) result from simply the geometric spreading of the source. An additional ground attenuation value of 1.5 dBA per doubling of distance applies to a soft site (e.g., soft dirt, grass, or scattered bushes and trees) (Caltrans 2013). Noise levels may also be reduced by intervening structures; the amount of attenuation provided by this "shielding" depends on the size of the object and the frequencies of the noise levels. Natural terrain features such as hills and dense woods, and man-made features such as buildings and walls, can significantly alter noise levels. Generally, any large structure blocking the line of sight will provide at least a 5-dBA reduction in source noise levels at the receiver (Federal Highway Administration [FHWA] 2011). Structures can substantially reduce exposure to noise as well. The FHWA's guidelines indicate that modern building construction generally provides an exterior-to-interior noise level reduction of 35 dBA for masonry buildings with closed windows.

The impact of noise is not a function of loudness alone. The time of day when noise occurs and the duration of the noise are also important factors of project noise impact. Most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors have been developed. L_{eq} is one of the most frequently used noise metrics; it considers both duration and sound power level. The L_{eq} is defined as the single steady-state A-weighted sound level equal to the average sound energy over a time period. When no time period is specified, a 1-hour period is assumed. The L_{max} is the highest noise level within the sampling period, and the L_{min} is the lowest noise level within the measuring period. Normal conversational levels are in the 60 to 65-dBA L_{eq} range; ambient noise levels greater than 65 dBA L_{eq} can interrupt conversations (Federal Transit Administration [FTA] 2018).

Noise that occurs at night tends to be more disturbing than that occurring during the day. Community noise is usually measured using Day-Night Average Level (DNL), which is the 24-hour average noise level with a +10 dBA penalty for noise occurring during nighttime hours (10:00 p.m. to 7:00 a.m.); it is also measured using Community Noise Equivalent Level (CNEL), which is the 24-hour average noise level with a +5 dBA penalty for noise occurring from 7:00 p.m. to 10:00 p.m. and a +10 dBA penalty for noise occurring from 10:00 p.m. to 7:00 a.m. (Caltrans 2013).

Vibration

Groundborne vibration of concern in environmental analysis consists of the oscillatory waves that move from a source through the ground to adjacent buildings or structures, and vibration energy may propagate through the buildings or structures. Vibration may be felt, may manifest as an audible low-frequency rumbling noise (referred to as groundborne noise), and may cause windows,

items on shelves, and pictures on walls to rattle. Although groundborne vibration is sometimes noticeable in outdoor environments, it is almost never annoying to people who are outdoors. The primary concern from vibration is that it can be intrusive and annoying to building occupants at vibration-sensitive land uses and may cause structural damage.

Typically, ground-borne vibration generated by manmade activities attenuates rapidly as distance from the source of the vibration increases. Vibration amplitudes are usually expressed in peak particle velocity (PPV) or root mean squared (RMS) vibration velocity. The PPV and RMS velocity are normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is often used as it corresponds to the stresses that are experienced by buildings (Caltrans 2020).

High levels of groundborne vibration may cause damage to nearby building or structures; at lower levels, groundborne vibration may cause minor cosmetic (i.e., non-structural damage) such as cracks. These vibration levels are nearly exclusively associated with high impact activities such as blasting, pile-driving, vibratory compaction, demolition, drilling, or excavation.

Sensitive Receivers

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. The City's Noise Element describes noise-sensitive land uses as schools, hospitals, childcare, senior care, congregate care, churches, and all types of residential use (City of Santa Clarita 2011a). The nearest noise-sensitive receivers to the project site consist of residences located approximately 100 feet to the west of the proposed facility footprint.

Vibration sensitive receivers are similar to noise sensitive receivers and includes residences and institutional uses, such as schools, churches, and hospitals. However, vibration sensitive receivers also include buildings where vibrations may interfere with vibration-sensitive equipment, which can affected by levels that may be well below those associated with human annoyance.

Project Noise Setting

The most common source of noise in the project site vicinity is vehicular traffic from Valencia Boulevard. To characterize ambient sound levels at and near the project site, two 15-minute sound level measurements were conducted on September 22, 2020. The sound meter was calibrated prior to measurements. Noise Measurement (NM) 1 was taken near Valencia Boulevard to measure traffic noise, and NM 2 was taken towards the northern end of the project site to measure ambient noise levels on site. Table 13 summarizes the results of the noise measurements, and Table 14 shows the recorded traffic volumes from NM 1. Traffic counts, and subsequently noise levels, may have been lower due to school and businesses closures from the COVID-19 pandemic. Detailed sound level measurement data are included in Appendix E.

Table 13 Project Site Noise Monitoring Results – Short Term

Measurement	Location	Sample Times	Approximate Distance to Primary Noise Source	L _{eq} (dBA)	L _{max} (dBA)	Notes
NM1	Adjacent to Valencia Boulevard	12:08 – 12:23 p.m.	Approximately 100 feet to centerline of Valencia Boulevard	66	77	Low to moderate traffic flow
NM2	Northern end of project site	12:30 – 12:45 p.m.	Approximately 330 feet to centerline of Valencia Boulevard	52	63	Relatively quiet area

Detailed sound level measurement data are included in Appendix E.

Table 14 Sound Level Monitoring Traffic Counts

Measurement	Roadway	Traffic	Autos ¹	Medium Trucks ²	Heavy Trucks ³
NM1	Valencia Boulevard	15-minute count	502	16	2
		One-hour Equivalent	2,008	64	8
Percent			96.5%	3.1%	0.4%

¹ Automobiles: all vehicles with two axles and four tires -- primarily designed to carry nine or fewer people (passenger cars, vans) or cargo (vans, light trucks) -- generally with gross vehicle weight less than 9,900 pounds.

Note: Detailed sound level measurement data are included in Appendix E.

Regulatory Setting

Chapter 11.44 of the Santa Clarita Municipal Code contains the City's noise regulations. Section 11.40.040 sets operational noise levels at residential, commercial, and manufacturing uses, which are shown in Table 15.

Table 15 City of Santa Clarita Noise Limits

Land Use ¹	Time	Noise Limit (dB) ²
Residential	7:00 a.m. to 9:00 p.m.	65
Residential	9:00 p.m. to 7:00 a.m.	55
Commercial/manufacturing	7:00 a.m. to 9:00 p.m.	80
Commercial/manufacturing	9:00 p.m. to 7:00 a.m.	70

¹ At the boundary line between a residential property and a commercial and manufacturing property, the noise level of the quieter zone shall be used.

- Repetitive impulsive noise: Correction of -5 dB
- Steady whine, screech or hum: Correction of -5 dB
- The following corrections apply to day hours only:
 - Noise occurring more than 5 but less than 15 minutes per hour: Correction of +5 dB
 - Noise occurring more than 1 but less than 5 minutes per hour: Correction of +10 dB
 - Noise occurring less than 1 minute per hour: Correction of +20 dB

Source: Santa Clarita Municipal Code Section 11.40.040

² Medium trucks: all cargo vehicles with two axles and six tires -- generally with gross vehicle weight between 9,900 pounds and 26,400 pounds.

³ Heavy trucks: all cargo vehicles with three or more axles -- generally with gross vehicle weight more than 26,400 pounds.

² Corrections to Noise Limits. The numerical limits above shall be adjusted by the following corrections, where the following noise conditions exist:

Santa Clarita Section 11.44.070 states, "any noise level from the use or operation of any machinery, equipment, pump, fan, air conditioning apparatus, refrigerating equipment, motor vehicle, or other mechanical or electrical device, or in repairing or rebuilding any motor vehicle, which exceeds the noise limits as set forth in Section 11.44.040 at any property line, or, if a condominium or rental units, within any condominium or rental unit within the complex, shall be a violation of this chapter." According to previous noise reports conducted in the City, City staff have indicated that construction work performed in conformance with Santa Clarita Municipal Code Section 11.44.080 is exempt from Santa Clarita Municipal Code Section 11.44.070 (Impact Sciences, Inc. 2010). Section 11.44.080 states that no person shall engage in any construction work which requires a building permit from the City on sites within 300 feet of a residentially zoned property, except between the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday, and 8:00 a.m. to 6:00 p.m. on Saturday. Further, no work shall be performed on the following public holidays: New Year's Day, Independence Day, Thanksgiving, Christmas, Memorial Day and Labor Day.

Significance Thresholds

Construction Noise

Although construction activity is exempt from compliance with Santa Clarita Municipal Code Section 11.44.070 if it occurs in conformance with Santa Clarita Municipal Code Section 11.44.080, for purposes of this analysis, the FTA Transit Noise and Vibration Impact Assessment (2018) criteria will be used. The FTA provides reasonable criteria for assessing construction noise impacts based on the potential for adverse community reaction. For residential uses, the daytime noise threshold is 80 dBA Leq for an 8-hour period.

Operational Noise

The noise level limits contained in Santa Clarita Municipal Code Section 11.40.040 (see Table 15) were utilized to evaluate the project's operational noise impacts.

Vibration

Vibration limits used in this analysis to determine a potential impact to local land uses from construction activities, such as blasting, pile-driving, vibratory compaction, demolition, drilling, or excavation, are based on information contained in the Caltrans (2020) *Transportation and Construction Vibration Guidance Manual* and the FTA (2018) *Transit Noise and Vibration Impact Assessment Manual*. Maximum vibration limits recommended by the American Association of State Highway and Transportation Officials (AASHTO) are identified in Table 16.

Table 16 AASHTO Maximum Vibration Levels for Preventing Damage

Type of Situation	Limiting Velocity (in/sec)	
Historic sites or other critical locations	0.1	
Residential buildings, plastered walls	0.2–0.3	
Residential buildings in good repair with gypsum board walls	0.4–0.5	
Engineered structures, without plaster	1.0–1.5	
in/sec = inches per second; AASHTO = American Association of State Highway and Transportation Officials Source: Caltrans 2020		

Based on AASHTO recommendations, limiting vibration levels to below 0.4 in/sec PPV at residential structures would prevent structural damage regardless of building construction type. These limits are applicable regardless of the frequency of the source. However, as shown in Table 17 and Table 18, potential human annoyance associated with vibration is usually different if it is generated by a steady state or a transient vibration source.

Table 17 Human Response to Steady State Vibration

PPV (in/sec)	Human Response
3.6 (at 2 Hz)–0.4 (at 20 Hz)	Very disturbing
0.7 (at 2 Hz)-0.17 (at 20 Hz)	Disturbing
0.10	Strongly perceptible
0.035	Distinctly perceptible
0.012	Slightly perceptible
PPV = peak particle velocity; Hz = hertz	
Source: Caltrans 2020	

Table 18 Human Response to Transient Vibration

PPV (in/sec)	Human Response
2.0	Severe
0.9	Strongly perceptible
0.24	Distinctly perceptible
0.035	Barely perceptible
PPV = peak particle velocity	
Source: Caltrans 2020	

As shown in Table 17, the vibration level threshold at which steady vibration sources are considered to be distinctly perceptible is 0.035 in/sec PPV. However, as shown in Table 18, the vibration level threshold at which transient vibration sources (such as construction equipment) are considered to be distinctly perceptible is 0.24 in/sec PPV. This analysis uses the distinctly perceptible threshold for purposes of assessing vibration impacts.

a. Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction Equipment

Construction noise was estimated using the FHWA Roadway Construction Noise Model (RCNM). RCNM predicts construction noise levels for a variety of construction operations based on empirical data and the application of acoustical propagation formulas. Using RCNM, construction noise levels were estimated at noise sensitive receivers near the project site. RCNM provides reference noise levels for standard construction equipment, with an attenuation rate of 6 dBA per doubling of distance for stationary equipment.

Variation in power imposes additional complexity in characterizing the noise source level from construction equipment. Power variation is accounted for by describing the noise at a reference distance from the equipment operating at full power and adjusting it based on the duty cycle of the activity to determine the L_{eq} of the operation (FHWA 2018). Each phase of construction has a specific equipment mix, depending on the work to be accomplished during that phase. Each phase also has its own noise characteristics; some will have higher continuous noise levels than others, and some have high-impact noise levels.

Construction activity would result in temporary noise in the project site vicinity, exposing surrounding nearby receivers to increased noise levels. Construction noise would typically be higher during the heavier periods of initial construction (i.e., site preparation and grading) and would be lower during the later construction phases (i.e., building construction, equipment installation, and paving). Typical heavy construction equipment during project grading could include dozers, loaders, and graders. It is assumed diesel engines would power all construction equipment. Construction equipment would not all operate at the same time or location. In addition, construction equipment would not be in constant use during the 8-hour operating day.

Project construction would occur over a 12-month period, and the nearest sensitive receivers to construction would be residences approximately 100 feet to the west of the proposed facility footprint. Over the course of a typical construction day, construction equipment would be located as close as 100 feet to these properties but would typically be located at an average distance farther away due to the nature of construction and the lot size of the project site. Therefore, it is assumed that over the course of a typical construction day the construction equipment would operate at an average distance of 150 feet from an individual sensitive receiver.

A potential construction scenario includes a grader and a front-end loader working during grading to excavate and move soil. At a distance of 150 feet, a grader and a front-end loader would generate a noise level of 73 dBA L_{eq} for an 8-hour period (RCNM calculations are included in Appendix E). This would be below the FTA daytime threshold of 80 dBA L_{eq} for an 8-hour period. In addition, construction would occur only between the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday, and 8:00 a.m. to 6:00 p.m. on Saturday, which is the timeframe during which construction is exempt from compliance with the City of Santa Clarita's noise standards. Therefore, construction noise impacts would be less than significant.

Construction Traffic

As discussed in Section 17, *Transportation*, project construction would involve up to 18 trips per day. According to the City of Santa Clarita, the segment of Valencia Boulevard in the vicinity of the

project site has a traffic volume of approximately 47,150 average daily trips (City of Santa Clarita 2013). The project would result in a less than 0.04 percent increase in roadway traffic. Generally, a doubling of traffic would result in a 3 dBA increase, which is the magnitude of noise level increase that is perceptible to humans and would be considered a significant noise increase. The negligible increase in traffic volumes would not have the potential to double existing traffic volumes on Valencia Boulevard and result in a significant noise impact. Therefore, construction traffic noise impacts would be less than significant.

Operational Mechanical Equipment

On-site noise sources would include mechanical equipment, specifically the project's new well pump. The 2,700-gpm, 800-HP pump would be replacing a 2,700-gpm pump. To analyze noise impacts from the pump, a reference noise level measured for a 100-HP pump on a water treatment plant was used (Padre Dam Municipal Water District 2015). This 100-HP pump had a sound power level of 93.2 dBA Lea. With a doubling of noise energy, noise levels will double; therefore, it is assumed that with each doubling of HP, noise levels would double. The project's 800-HP pump would result in an eightfold increase in noise levels over the example pump for a sound power level of 102.2 dBA Leg. The pump would be in a fully enclosed concrete tilt up structure that would provide noise attenuation. In addition, the building structure and other project components would be surrounded by an eight-foot-tall retaining wall made of masonry and concrete that would provide additional noise attenuation. The pump would be operational 24 hours per day, 365 days per year. Propagation of modeled stationary noise sources was based on ISO Standard 9613-2, "Attenuation of Sound during Propagation Outdoors, Part 2: General Method of Calculation." The assessment methodology assumes all receivers would be downwind of stationary sources. This is a worst-case assumption for total noise impacts since only some receivers would be downwind at any one time.

Based on the size of the pump, the 800-HP well pump was assumed to have a sound pressure level of 102.2 dBA $L_{\rm eq}$. Noise from the pump was assumed to be attenuated by at least 35 dBA from source to outside of its structure enclosure due to being enclosed in a masonry structure (FHWA 2011); this is a conservative assumption because the FHWA report described a 35-dBA reduction with double glazed windows, whereas the project's structure would have no windows (windows allow for more noise to pass through as opposed to a masonry wall). With this reduction and the distance attenuation over approximately 100 feet to the nearest sensitive receiver (residences to the west), the proposed well pump would produce a noise level of 34.5 dBA $L_{\rm eq}$ at the nearest sensitive receiver, not accounting for the additional noise reduction that would be provided by the proposed wall that would surround the facility. This would be well below the daytime and nighttime noise limits for residential land uses of 65 dBA and 55 dBA, respectively (Santa Clarita Municipal Code Section 11.40.040; Table 15). Other project equipment, such as the 1/2 HP and 1/10 HP metering pumps, tanks, and vessels would not measurably increase noise levels and would not be perceivable over well pump noise. Therefore, operational mechanical equipment noise impacts would be less than significant.

Operational Traffic

The project would involve one daily maintenance trip to the project site as well as infrequent trips for monthly chemical deliveries, biannual GAC media replacement, and semiannual IX media replacement. Similar to construction traffic, this level of vehicle trips would represent a negligible

increase over existing traffic and would result in a negligible noise increase. Therefore, operational traffic noise impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Construction

Construction activities have the greatest potential to generate ground-borne vibration affecting nearby receivers, especially during grading and excavation of the project site. The greatest vibratory source during construction in the project vicinity would be a large bulldozer. Neither blasting nor pile driving would be required for construction of the project. Construction vibration estimates are based on vibration levels reported by Caltrans and the FTA (Caltrans 2013; FTA 2018). Table 19 shows typical vibration levels for various pieces of construction equipment used in the assessment of construction vibration (FTA 2018).

Table 19 Vibration Levels Measured during Construction Activities

Equipment	PPV at 25 feet (in/sec)
Large Bulldozer	0.089
Loaded Trucks	0.076
Small Bulldozer	0.003
in/sec = inches per second	
Source: FTA 2018	

Construction activities known to generate excessive ground-borne vibration, such as pile driving, would not be conducted for the project. The greatest anticipated source of vibration during general project construction activities would be from a dozer, which may be used within 100 feet of the nearest off-site residential structure. As shown in Table 19, a dozer would create a vibration level of approximately 0.089 in/sec PPV at a distance of 25 feet (Caltrans 2013). This would equal a vibration level of 0.02 in/sec PPV at a distance of 100 feet, which would be lower than what is considered the distinctly perceptible vibration level for humans of 0.24 in/sec PPV and the structural damage threshold for residential structures of 0.4 in/sec PPV. Therefore, temporary construction vibration impacts would be less than significant.

Operation

The project does not include any substantial vibration sources associated with operation. Therefore, no impact associated with operational vibration would occur.

LESS THAN SIGNIFICANT IMPACT

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

The project is not located in the vicinity of an airport. The nearest airport is Whiteman Airport, located approximately 14 miles to the southwest of the project site. Therefore, the project would

Santa Clarita Valley Water Agency Well 205 Groundwater Treatment Project

not expose people working at the project site to excessive airport noise levels, and no impact would occur.

14 Population and Housing					
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Wo	ould the project:				
a.	Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?				•
b.	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				

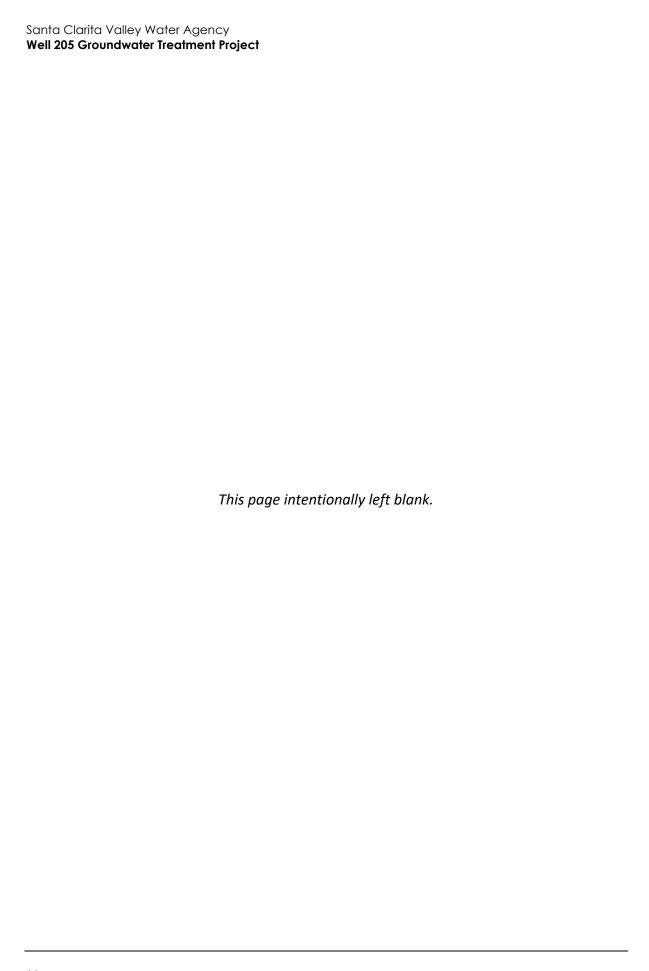
a. Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

The proposed project includes groundwater treatment facilities to reduce perchlorate levels in produced water supplies. Due to the relatively small nature of the proposed project, construction workers would be local to the Santa Clarita region; therefore, construction would not generate new population growth. As previously discussed, the project would not increase the production capacity of Well 205. During project operation, groundwater treatment facilitated by the proposed project would not directly induce population growth because it would not produce additional water supplies for residential or commercial use. Furthermore, the proposed project would not result in the construction of new homes or new commercial or industrial uses. Therefore, the project would not induce substantial unplanned population growth in an area, either directly or indirectly, and no impact would occur.

NO IMPACT

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The proposed project would be constructed on the same site as the existing Well 205 facilities. The project does not propose demolition of existing housing. Therefore, the project would not displace substantial numbers of existing people or housing, and no impact would occur.



15 Public Services						
			Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a.	adv the gov new faci cau: in o ratio	uld the project result in substantial erse physical impacts associated with provision of new or physically altered ernmental facilities, or the need for v or physically altered governmental lities, the construction of which could se significant environmental impacts, order to maintain acceptable service os, response times or other formance objectives for any of the olic services:				
	1	Fire protection?				•
	2	Police protection?				•
	3	Schools?				•
	4	Parks?				•
	5	Other public facilities?				•

a.1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The proposed groundwater treatment facility would not require additional or unusual fire protection resources beyond those required for the existing facilities on the project site. In the event of an unexpected need for fire resources and protection for the proposed project, the closest fire station is the Los Angeles County Fire Department Station #126, located at 26320 Citrus Street in Santa Clarita, approximately 0.6 mile (driving distance) east of the project site. In addition, the proposed project would not change existing demand for fire protection services because population growth would not result from construction or operation of the proposed project, as discussed in Section 14, *Population and Housing*. Therefore, no impact to fire protection services would occur.

a.2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The Los Angeles County Sheriff's Department Santa Clarita Valley Sheriff's Station would serve the proposed project from its location at 23740 Magic Mountain Parkway in Santa Clarita, approximately 0.9 mile east (driving distance) of the project site. The proposed project would not change existing demand for police protection services because population growth would not result from construction or operation of the proposed project, as discussed in Section 14, *Population and Housing*. Thus, the proposed project would not result in an impact associated with the provision of new or physically altered police protection facilities. Therefore, no impact to police protection services would occur.

NO IMPACT

a.3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

The project area is served by the Newhall School District (elementary schools) and the William S. Hart Union High School District (junior high and high schools). The closest elementary school is Valencia Valley Elementary, located at 26301 Carrizo Drive in Valencia, approximately 0.8 mile southeast. The closest junior high or high school is West Ranch High School, located at 26255 Valencia Boulevard in Santa Clarita, approximately 1.8 miles to the west of the project site. The proposed project would not change existing demand for schools because population growth would not result from construction or operation of the proposed project, as discussed in Section 14, *Population and Housing*. Therefore, no impact to schools would occur.

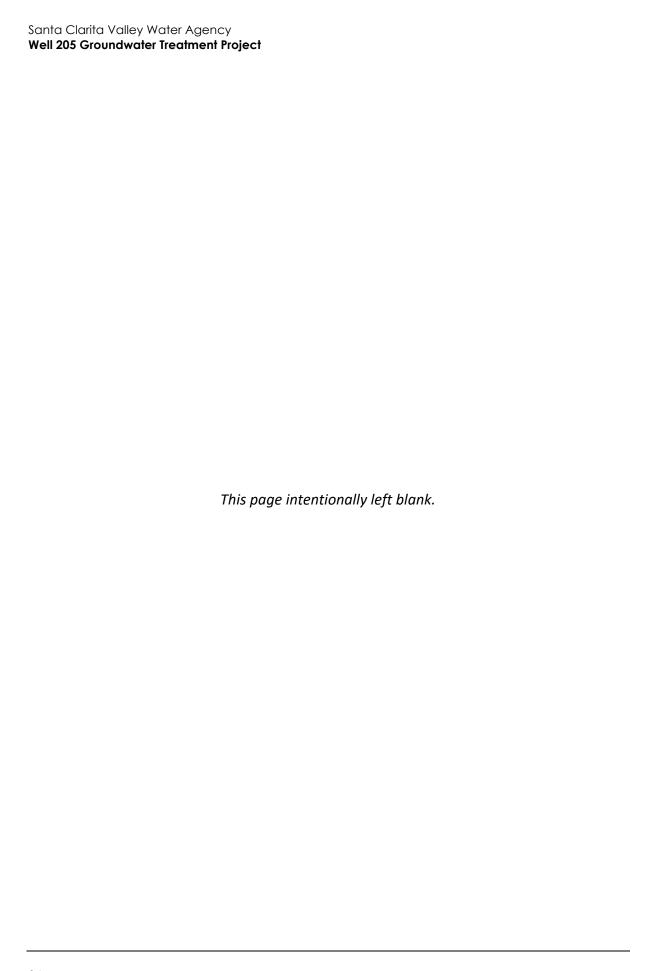
NO IMPACT

a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

The closest park to the project site is Summit Park, located approximately 0.3 mile south of the project site. The proposed project would not change existing demand for parks because population growth would not result from construction or operation of the proposed project, as discussed in Section 14, *Population and Housing*. Therefore, no impacts to parks would occur.

a.5. Would the project result in substantial adverse physical impacts associated with the provision of other new or physically altered public facilities, or the need for other new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The proposed project would not change existing demand for public facilities because population growth would not result from construction or operation of the proposed project, as discussed in Section 14, *Population and Housing*. Therefore, no impact to public facilities would occur.



16 Recreation						
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	
a.	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?					
b.	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				•	

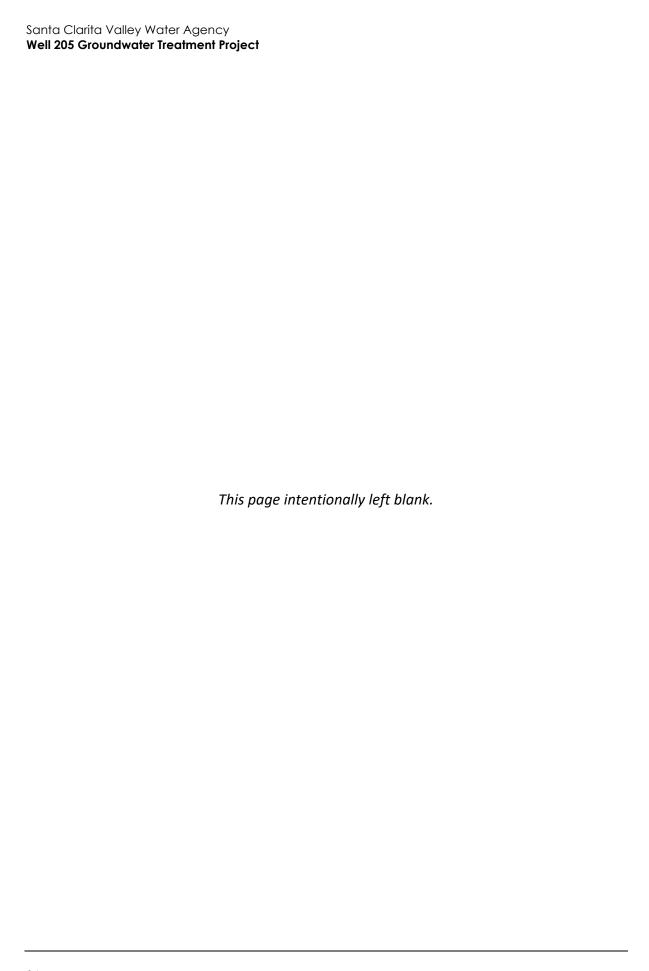
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

The closest park to the project site is Summit Park, located approximately 0.3 mile south of the project site. As discussed in Section 14, *Population and Housing*, the proposed project would not directly or indirectly generate population growth and therefore would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. No impact would occur.

NO IMPACT

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The project would involve construction of a new groundwater treatment facility at the existing Well 205 site. The project would not involve construction or expansion of recreational facilities. No impact would occur.



17	7 Transportation				
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:					
a.	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?				
b.	Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			•	
c.	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?			•	
d.	Result in inadequate emergency access?			-	

a. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Construction-related vehicle trips would include construction workers traveling to and from the project site, haul trucks (including for soil import), and other trucks associated with equipment and material deliveries. During peak construction months, construction-related vehicle trips would total up to 18 trips per day, according to CalEEMod (Appendix A). Such trips would occur on area roadways, including Valencia Boulevard, which is the primary access route to the project site. The segment of Valencia Boulevard in the vicinity of the project site has a base traffic volume of approximately 47,150 average daily trips (City of Santa Clarita 2013). Therefore, construction trips would account for less than 0.04 percent of existing roadway traffic. Because construction would be a short-term activity and trips would account for a small proportion of traffic on area roadways, construction-related transportation impacts would be less than significant. Project operation would involve one daily maintenance trip and infrequent trips for monthly chemical deliveries, biannual GAC media replacement, and semiannual IX media replacement, which would constitute a negligible increase in the traffic volume on Valencia Boulevard. Furthermore, pedestrian access in the project site via the sidewalk along the northern lane of Valencia Boulevard would be maintained. Pedestrian travel would be infrequently interrupted by vehicles entering and exiting the site at the proposed access driveway, as described above. In addition, the project would not change existing operations at the adjacent McBean Regional Transit Center. Given the minimal number of trips generated and the limited impact to public transit and pedestrian facilities, the proposed project would not conflict with adopted policies, plans, or programs addressing the circulation system, including public transit, bicycle, or pedestrian facilities. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

CEQA Guidelines Section 15064.3(b) identifies criteria for evaluating transportation impacts. Specifically, the guidelines state VMT exceeding an applicable threshold of significance may indicate a significant impact. According to Section 15064.3(b)(3) of the CEQA Guidelines, a lead agency may include a qualitative analysis of operational and construction traffic. A VMT calculation is typically conducted on a daily or annual basis, for long-range planning purposes. As discussed under item (a), traffic on local roadways may be temporarily increased during project construction due to the presence of construction vehicles and equipment. Increases in VMT from construction would be short-term, minimal and temporary. In addition, maintenance of the proposed project would consist of approximately one vehicle trip per day along with infrequent trips for monthly chemical deliveries, biannual GAC media replacement, and semiannual IX media replacement. Such visits would not substantially contribute to VMT in the project area. In addition, as stated in the City of Santa Clarita's Transportation Analysis Updates guidance, projects that generate less than 110 daily trips are presumed to result in less-than-significant VMT impacts absent substantial evidence to the contrary (City of Santa Clarita 2020). The project would generate substantially less than 110 trips per day; therefore, impact associated with VMT would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?

Project components consist of water treatment equipment to be located on the existing Well 205 site. The project would include a new access driveway along Valencia Boulevard; however, the design and construction of this driveway would be designed consistent with Santa Clarita Municipal Code Chapter 13.16, which would ensure the new driveway would not substantially increase hazards due to a geometric design feature. Truck deliveries would utilize this driveway during project operation; however, the presence of these types of vehicles on Valencia Boulevard is common given the adjacent McBean Regional Transit Center, which experiences frequent bus traffic, and would not constitute an incompatible use. The proposed project would therefore not create or substantially increase a traffic hazard due to a geometric design feature or incompatible use. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project result in inadequate emergency access?

Construction activities associated with the proposed project would not result in road lane closures or associated traffic impacts. Although construction of the project would temporarily increase heavy vehicle trips to and from the project site, such effects would be localized and temporary and would not have potential to impede emergency access in the project area. Similarly, operation of the project may increase vehicular traffic to and from the project site, but such an increase would be approximately one additional vehicle per day along with infrequent trips for monthly chemical deliveries, biannual GAC media replacement, and semiannual IX media replacement, which would not substantially affect emergency access in the project area. Consequently, the project would not result in inadequate emergency access, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

Tribal Cultural Resources Less than Significant Potentially with Less than Significant Mitigation Significant Impact Incorporated Impact No Impact

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

- a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or
- b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

As of July 1, 2015, California AB 52 of 2014 expanded CEQA by defining a new resource category, "tribal cultural resources." AB 52 establishes that "a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (PRC Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3).

PRC Section 21074 (a)(1)(A-B) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is:

- 1. Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC Section 5020.1(k), or
- 2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1(c). In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also establishes a formal consultation process for California tribes regarding those resources. Under AB 52, lead agencies are required to "begin consultation with a California Native American

tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency. The consultation process must be completed before a CEQA document can be adopted/certified.

The NAHC was contacted to request a review of the SLF on September 2, 2020. On September 17, 2020, the NAHC provided a response indicating the SLF search was negative, meaning no known tribal cultural resources are present within the project site and the surrounding area.

As part of the AB 52 consultation, SCV Water sent AB 52 consultation letters to four Native American tribes who are traditionally and culturally affiliated with the project site in October 2020 - the Gabrieleño Band of Mission Indians-Kizh Nation, the Torres Martinez Desert Cahuilla Indians, the Fernandeño Tataviam Band of Mission Indians (FTBMI), and the San Gabriel Band of Mission Indians. On October 14, 2020, Jairo Avila, FTBMI Tribal Historic and Cultural Preservation Officer, requested consultation for the project. Discussions were held between SCV Water and Mr. Avila and consultation was concluded on March 2, 2021. While the consultation process did not identify any specific tribal cultural resources on the project site, the consultation resulted in the agreement to incorporate both cultural resources and tribal cultural resources mitigation measures due to the sensitivity of the project area for tribal cultural resources. Appendix F contains the full correspondence. Implementation of Mitigation Measures TCR-1 through TCR-3 are required to reduce impacts to tribal cultural resources to a less-than-significant level.

Mitigation Measures

With implementation of the following mitigation measures, potential impacts related to tribal cultural resources would be reduced to a less-than-significant level.

TCR-1 Native American Monitoring

The Santa Clarita Valley Water Agency shall retain a professional Native American monitor procured by the Fernandeño Tataviam Band of Mission Indians or any other Native American Tribe participating in AB 52 consultation to observe ground-disturbing activities up to five feet below the surface of native intact soil, unless there is evidence to suggest cultural resources extend below the specified depth. Ground-disturbing activities include, but are not limited to, tree/shrub removal and planting, clearing/grubbing, grading, excavation, trenching, drainage and irrigation removal and installation, and archaeological work. If cultural resources are encountered, the Native American monitor shall have the authority to request ground-disturbing activities cease within 50 feet of the discovery in order to assess and document potential finds in real time.

After approximately 50 percent of initial ground-disturbing activities have been completed, the Native American monitor shall discuss with the Santa Clarita Valley Water Agency and its archaeologist the potential to reduce the level of Native American monitoring to "spot monitoring" or even to cease Native American monitoring based on the condition and types of soil observed during monitoring and the monitoring results to-date.

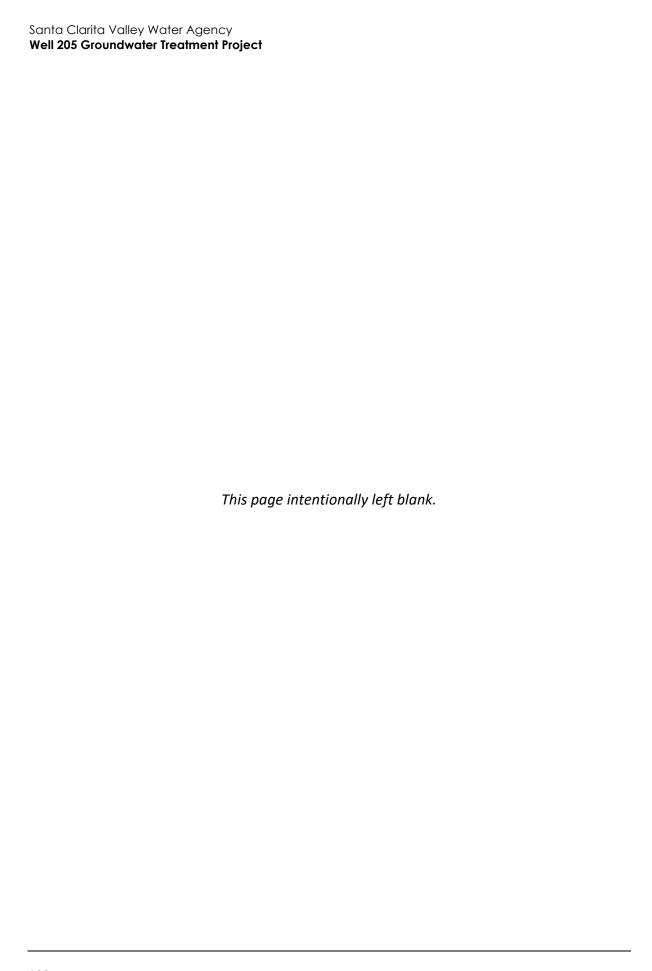
TCR-2 Archaeological/Cultural Resource Document Submittal

Any and all archaeological/cultural documents created as a part of the project (e.g., isolate records, site records, survey reports, testing reports, and monitoring reports) shall be provided to any Native American tribal organization that requested and participated in the AB 52 consultation process for internal records.

TCR-3 Native American Consultation

The Santa Clarita Valley Water Agency shall, in good faith, consult with any Native American tribal organization that requested and participated in the AB 52 consultation process on the disposition and treatment of any tribal cultural resource encountered during all ground-disturbing activities.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED



Utilities and Service Systems Less than Significant **Potentially** with Less than Significant Mitigation **Significant Impact** Incorporated **Impact** No Impact Would the project: a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? П П d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Water

The proposed project would involve the construction and operation of groundwater treatment equipment, the environmental effects of which are analyzed in this IS-MND. The project would not increase the production capacity of Well 205 or increase potable water pipeline capacity to serve additional customers. As concluded by this IS-MND, the groundwater treatment facility included in

Well 205 Groundwater Treatment Project

the proposed project would not cause unmitigable significant environmental effects. Consequently, no additional impact related to water facilities would occur.

Wastewater Treatment

The proposed project would not generate sanitary wastewater or otherwise contribute to an increase in wastewater treatment. Therefore, the project would not require relocation or construction of new wastewater facilities, and no impact would occur.

Stormwater Drainage

As discussed in Section 10, *Hydrology and Water Quality*, the project would generally preserve existing drainage patterns on site, with water continuing to flow from higher elevations in the northern and western parts of the site toward a storm drain inlet near the site's eastern border. The increase in impervious surface would also be nominal. The project would not require new or expanded stormwater drainage infrastructure. Therefore, no impact related to stormwater drainage would occur.

Electric Power

As discussed in Section 6, *Energy*, the project would require approximately 4,300 MWh of electricity annually to operate the proposed facility. The facility would be served by existing SCE infrastructure, and this increase in energy demand would be supplied by the regional electricity grid, which is increasingly powered by renewable energy. Given that the project would be served by existing electric power infrastructure in the project vicinity, no new or relocated energy facilities would be required as a result of the proposed project. No impact would occur.

Natural Gas

The project would not involve any components requiring natural gas service and is not anticipated to involve the relocation of existing natural gas facilities. Therefore, no impact to natural gas facilities would occur.

Telecommunications

The project would require telecommunications to operate the supervisory control and data acquisition system. However, the requisite telecommunication infrastructure is already in place for the Well 205 equipment and would not involve the relocation of existing telecommunications facilities. Therefore, no impacts related to telecommunications facilities would occur.

NO IMPACT

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

The proposed project consists of the construction and operation of groundwater treatment infrastructure. Consistent with previous operating conditions, Well 205 would be equipped to produce up to 2,700 gpm of groundwater from the Saugus Formation of the Santa Clara River Valley Groundwater Basin. The project would treat up to 4,360 acre-feet per year of groundwater. As previously discussed, the proposed project would not increase the production capacity of Well 205.

The project itself would not introduce a new operational water demand. Project construction water requirements would be met via existing SCV Water supplies and facilities. Moreover, the project would have a beneficial effect on existing water supplies by reactivating Well 205. Therefore, no adverse impact would occur related to sufficient water supplies.

NO IMPACT

c. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

As discussed under item (a), the project would not generate sanitary wastewater or otherwise contribute to an increase in wastewater treatment requirements. No impact would occur.

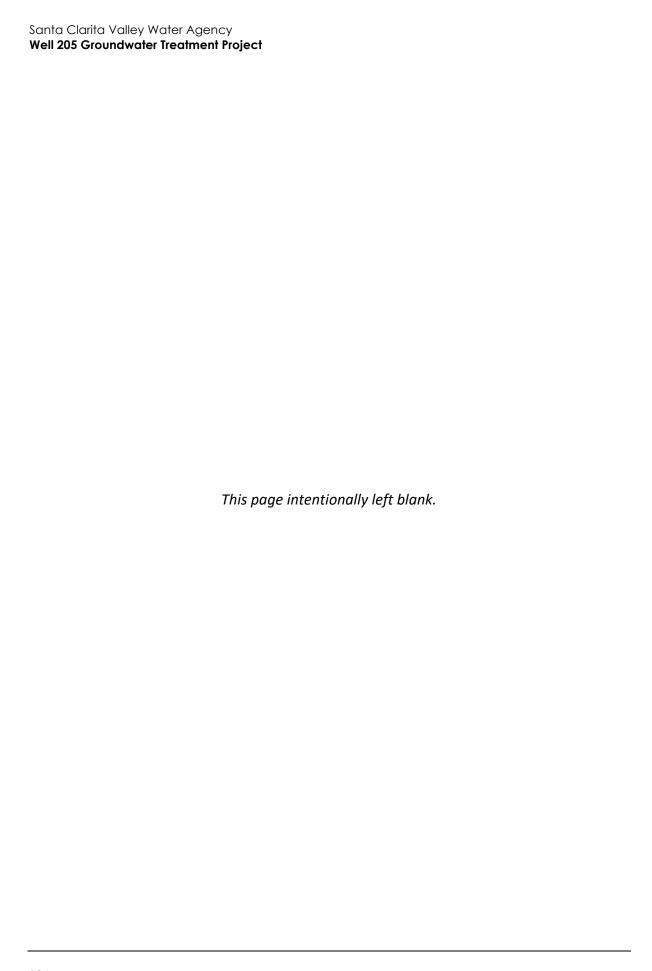
NO IMPACT

- d. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?
- e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Construction activities may temporarily generate solid waste, including soil spoils, pavement debris, or other construction waste, which would be disposed of in accordance with all applicable federal, state, and local statutes and regulations. While most soil is expected to be reused as backfill material within the project area, exported soil and minimal remaining inert construction waste would be disposed of at existing construction waste landfills in the area. Due to the temporary nature of construction and minimal amount of construction waste anticipated to require disposal, the project would not generate quantities of solid waste that would account for a substantial percentage of the total daily regional permitted capacity available at landfills accepting such waste. Therefore, waste generated by construction activities would not exceed the available capacity at the landfills serving the project area that would accept debris generated by the project, such as the Chiquita Canyon Landfill and the Sunshine Canyon Landfill.

As standard practice, SCV Water complies with all applicable laws and regulations related to solid waste generation, collection, and disposal. The project would result in a short-term and temporary increase in solid waste generation during construction but would not substantially affect standard solid waste operations of any landfill accepting waste. Recycling and reuse activities during construction would comply with the California Integrated Waste Management Act of 1989 (AB 939). Once operational, the project would include unmanned facilities and would generate minor amounts of solid waste (e.g., from GAC and IX media replacement). Therefore, solid waste impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT



20) Wildfire				
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
	cated in or near state responsibility areas or es, would the project:	lands classifi	ied as very higi	h fire hazard	severity
a.	Substantially impair an adopted emergency response plan or emergency evacuation plan?			•	
b.	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?		•		
C.	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				-
d.	Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				•

The entire coastal southern California region is prone to large wildfires due to its hot, dry climate and expansive coverage of ignitable vegetation. During the autumn and winter months, strong offshore Santa Ana wind events carry dry, desert air and can fan fast-moving fires that spread rapidly from heavily-vegetated wilderness and mountainous areas into developed communities. Santa Clarita is urbanized but is surrounded by undeveloped open space. The area is prone to regular brush fires, particularly during summer heat waves, which can pose a safety risk. Recent fires in the project site vicinity include a 230-acre brush fire in the Angeles National Forest near the Bouquet Reservoir south of Santa Clarita in September 2020.

While a natural ecological process in coastal chaparral and forest systems, wildfire return intervals have decreased throughout southern California, resulting in more frequent ecological disturbance, loss of biodiversity, and colonization by non-native grass species (United States Forest Service 2018). Furthermore, post-fire conditions leave exposed mountain slopes and hillsides vulnerable to surface erosion and runoff. Debris flows during post-fire rainy seasons can pose a risk to life and property and occur with little warning. In southern California, as little as 0.3 inch of rain in 30 minutes can produce debris flows on post-fire landscapes (United States Geological Survey 2018).

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The project site is not located in a designated VHFHSZ or a State Responsibility Area (SRA), but the nearest VHFHSZ is located approximately 0.8 mile to the west of the project site (CAL FIRE 2022). Therefore, for the purposes of this analysis, the project site is considered to be located near a VHFHSZ. In addition, as discussed in Section 9, *Hazards and Hazardous Materials*, the proposed facility would be located adjacent to brush-covered open space vegetated with native plant communities, which are highly combustible.

a. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

The City of Santa Clarita's LHMP (2021) sets forth hazard mitigation strategies related to a variety of threats, including wildfire. Strategies towards mitigating wildfire include working with the Los Angeles Fire Department to enhance emergency service and increase the efficiency of response times, enhance outreach and education programs on wildfires, encourage and increase communication among wildland/urban interface property owners, and enhancing the City's Urban Forestry ability to manage wildfire events. As discussed in Section 9, *Hazards and Hazardous Materials*, the proposed project would not interfere with implementation of the City's LHMP.

As discussed in Section 17, *Transportation*, the project would not impede access to emergency services. Construction of the proposed treatment facilities would not require temporary lane or road closures that would impede emergency response. Although construction of the project would temporarily increase heavy vehicle trips to and from the project site, such effects would be localized and temporary and would not have potential to impede emergency access in the project area. In addition, the project would be designed, constructed, and operated pursuant to applicable standards outlined in the 2019 California Fire Code. Such requirements include building and emergency access, adequate emergency notification, and means of egress for emergency vehicles. Consequently, the proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan in wildfire risk zones. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

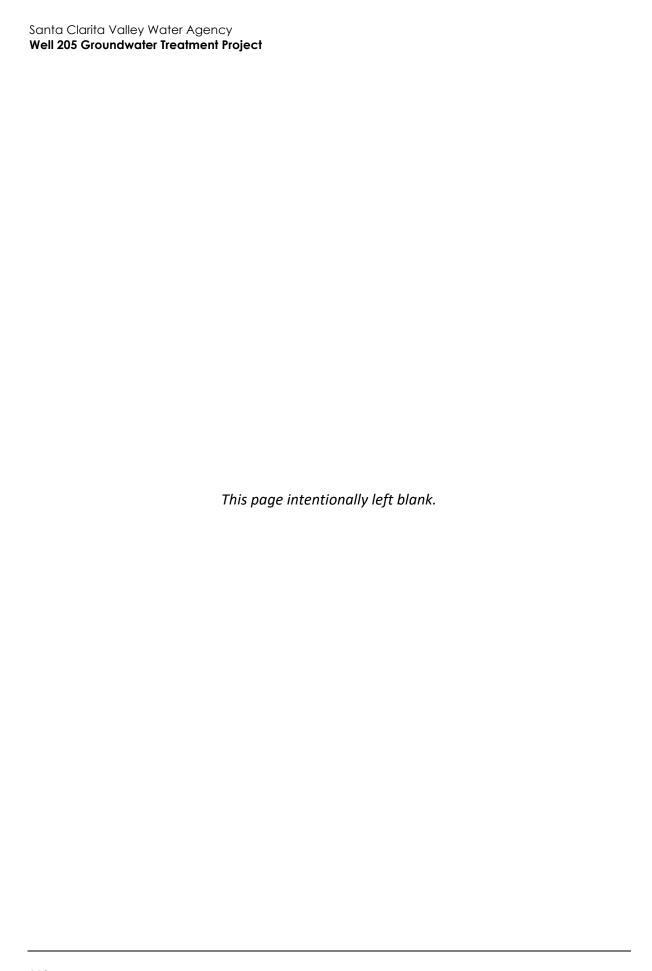
As discussed in Section 9, Hazards and Hazardous Materials, project operation would not involve potentially flammable activities. However, the wildland-urban interface could pose the potential for incidents of fire during project construction. Potential ignition sources may include sparks from exhaust pipes, discarded cigarette butts, contact of mufflers with dry grass, other sources of sparks or flame, and spills or releases of flammable materials such as gasoline. Therefore, impacts related to wildland fires during project construction would be potentially significant, and implementation of Mitigation Measure HAZ-2 would be required to reduce impacts to a less-than-significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- c. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?
- d. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The proposed project consists of the construction of a groundwater treatment facility. As discussed in Section 19, *Utilities and Service Systems*, the project would not result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities beyond those groundwater treatment facilities evaluated in this analysis. The proposed project would not include fuel breaks, emergency water sources, power lines, or other aboveground utilities that would exacerbate fire risk or result in temporary or ongoing impacts to the environment. Furthermore, the proposed project does not include habitable structures and would therefore not expose people to significant risks as a result of runoff, post-fire slop instability, or drainage changes. Therefore, no impacts would occur.

NO IMPACT



21 Mandatory Findings of Significance

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

a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially 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?

Potential impacts to biological resources are addressed in Section 4, *Biological Resources*. As described therein, there is low to moderate potential for certain special-status plant and wildlife species to occur on the project site, including the federally-threatened coastal California gnatcatcher. Implementation of Mitigation Measures BIO-1 and BIO-2 would mitigate direct and indirect impacts to special-status plant and wildlife species to a less-than-significant level. Therefore, the project would not substantially reduce the habitat of fish and wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, eliminate a plant or animal

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community, or reduce the number or restrict the range of a rare or endangered plant or animal. In addition, as discussed in Section 5, *Cultural Resources*, the project would not eliminate important examples of the major periods of California history or prehistory because none are known to be present in the project area. Impacts would be less than significant with mitigation incorporated.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

Cumulative impacts are defined as two or more individual project effects which, when considered together or in concert with existing development and other future projects, combine to result in a significant impact within an identified geographic area. In order for a project to contribute to cumulative impacts, it must result in some level of impact on a project-specific level. As described in the discussion of environmental checklist Sections 1 through 20, with respect to all environmental issues, the proposed project would not result in significant and unmitigable impacts to the environment. All anticipated impacts associated with project construction and operation would be either less than significant or less than significant with mitigation incorporated. This is largely due to the fact that project construction activities would be temporary, and project operational activities would not significantly alter the environmental baseline condition.

The Oliver Hotel (Element by Westin) was approved in November 2016 by the City of Santa Clarita. Located at the intersection of Valencia Boulevard and McBean Parkway, approximately 500 feet to the east of the proposed project site, the Oliver Hotel will consist of a 102,000 square-foot, 134-room hotel. Grading has commenced; however, the construction schedule is unknown at this time. Therefore, the construction period of this project could overlap with the proposed project.

As described in the impact analyses provided in Sections 1 through 20 of this IS-MND, a number of the environmental topic areas would experience "No Impact" as a result of the proposed project; in other words, the project would result in no adverse impacts to these environmental resources. These environmental topics include the following: Agricultural and Forestry Resources; Energy; Land Use and Planning; Mineral Resources; Population and Housing; Public Services; and Recreation. These topic areas are not addressed further for cumulative impacts, because they would have no impact and therefore would not contribute to the cumulative scenario for cumulative impacts.

The following analysis of cumulative impacts addresses those effects for which some level of potential impact was identified, which includes topics for which a "Less than Significant Impact" was identified, as well as those for which the threshold question assumed some level of impact (i.e., those for which consideration of a potential "significant" effect was considered, per CEQA Guidelines Section 15382; in this case, threshold questions which assumed impacts would be "Less than Significant with Mitigation Incorporated"). Potential regional cumulative effects were considered for the environmental topics which would result in less than significant impacts from project implementation (without or with project mitigation).

Aesthetics. Temporary aesthetic impacts associated with the presence and use of equipment and machinery at and around the project site and the Oliver Hotel site would be visible from Valencia Boulevard. These effects would be temporary in duration. As discussed in Section 1, Aesthetics, the area around the project site (and the Oliver Hotel site) is not identified as a scenic vista or scenic resource area. The proposed project would not conflict with applicable

- zoning and other regulations governing scenic quality or create a significant new source of light and glare when considered in tandem with the Oliver Hotel project and other cumulative development. Therefore, no cumulative aesthetic impact would occur.
- Air Quality/GHG Emissions. Air pollutant and GHG emissions disperse from their original source and can affect the entire air basin (or, with global warming, potentially the entire Earth). For air quality and GHG emissions, the project-level analysis addresses the cumulative condition, meaning it evaluates the project's contribution to existing cumulative impacts related to regional air quality conditions and GHG emissions/climate change. The region is in nonattainment for the criteria pollutant standards for ozone, PM₁₀, and PM_{2.5}, which means that existing cumulative air quality impacts are inherently significant. However, SCAQMD's significance thresholds are intended to determine whether a project would individually or cumulatively jeopardize attainment of the CAAQS and NAAQS. As discussed in Section 3, Air Quality, the proposed project's construction and operational air quality emissions would not exceed the thresholds and would be less than significant. Therefore, the project's air quality impacts would not individually jeopardize attainment of the CAAQS or NAAQS, and the project's contribution to cumulative impacts would not be considerable. Furthermore, SCAQMD's significance thresholds are intended to determine whether a project would individually or cumulatively contribute to global climate change. As discussed in Section 8, Greenhouse Gas Emissions, the project would not exceed the thresholds. Therefore, the project's GHG impacts would not be cumulatively considerable.
- **Biological Resources.** As described in Section 4, *Biological Resources*, implementation of Mitigation Measures BIO-1 and BIO-2 would reduce biological resources impacts to less-than-significant levels. Other projects in the region would also be required to comply with federal, state, regional, and local regulations and laws put in place to minimize impacts to biological resources. Therefore, the contribution to cumulative biological resources impacts would not be cumulatively considerable.
- Cultural Resources. As described in Section 5, Cultural Resources, although no historical or archaeological resources are known to exist within the project site, unanticipated discoveries are a possibility during ground disturbance. Implementation of Mitigation Measure CR-1 would reduce impacts to a less-than-significant level. As a result, the project's contribution to cumulative cultural resources impacts would not be cumulatively considerable. In addition, the project would not result in a substantial adverse change to a built environment resource listed or eligible for listing in the National Register of Historic Places or the CRHR because none are located in the project site vicinity. Therefore, no cumulative impacts to historic resources would occur.
- Geology and Soils. Impacts associated with geology and soils, including paleontological resources, are inherently site-specific and restricted to the location of the project activities. Due to the site-specific nature of impacts and the implementation of Mitigation Measure GEO-1, the proposed project would not contribute to cumulative impacts associated with other future developments.
- Hazards and Hazardous Materials. Similar to geology and soils, impacts associated with hazards and hazardous materials are inherently site-specific and restricted to the location of the project activities. In the event the project would result in accidental discharge associated with transport, use, storage, and/or disposal of hazardous materials during construction or operation of the project, compliance with the NPDES Construction General Permit or Mitigation Measure HWQ-1 would reduce potential impacts associated with the discharge of contaminants to a less-than-significant level. The project would also comply with applicable federal, state, and local

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laws and regulations regarding hazardous materials. Therefore, no cumulative impacts related to hazardous materials would occur.

- Hydrology and Water Quality. Cumulative development in the project area would increase impervious surfaces, thereby increasing stormwater runoff volumes and flow rates. However, the proposed project would not exceed the capacity of the existing stormwater drainage system. In addition, implementation of BMPs as part of project conformance with NPDES permit conditions or Mitigation Measure HWQ-1 would effectively eliminate the potential for drainage-and water quality-related impacts. Furthermore, although a significant groundwater supplies impact exists due to the high-priority status of the Santa Clara River Valley East Sub-basin, groundwater production under the proposed project would match historical production from Well 205. Therefore, no contribution to cumulative hydrology and water quality impacts would occur.
- Noise. The project site is located in an urbanized area predominantly affected by vehicular traffic noise from Valencia Boulevard and McBean Parkway. As discussed in Section 13, Noise, project construction would occur between the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday, and 8:00 a.m. to 6:00 p.m. on Saturday, which is consistent with the City's allowed hours of construction under its Noise Ordinance. Therefore, project construction would not contribute to a cumulative noise impact. In addition, operational noise generate by the proposed project would be well below the daytime and nighttime noise limits for residential land uses in the city. Future cumulative development including the Oliver Hotel would be subject to the City's noise ordinance, which would prevent significant noise impacts. Therefore, no cumulative noise impact would occur.
- **Transportation.** No substantial long-term transportation impacts would occur as a result of the project. Given the temporary nature of construction-related traffic impacts and the fact the project would not generate a substantial amount of operational traffic, the contribution to cumulative transportation impacts would not be cumulatively considerable.
- Tribal Cultural Resources. Impacts associated with tribal cultural resources are inherently site-specific and restricted to the location of the project activities. No tribal cultural resources at known to be present at the project site, and implementation of Mitigation Measures TCR-1 through TCR-3 would further reduce the proposed project's potential to impact tribal cultural resources. Therefore, the project's contribution to cumulative impacts to tribal cultural resources would not be cumulatively considerable.
- Utilities and Service Systems. The project would not induce population growth and therefore
 would not, directly or indirectly, contribute to cumulative impacts to utilities and service
 systems.
- Wildfire. As described in Section 20, Wildfire, potential wildfire impacts associated with the project would be less than significant with implementation of Mitigation Measure HAZ-2. Given there would be no long-term operational wildfire impacts and the short-term nature of any construction-related wildfire impacts, the project's contribution to any cumulative impact would not be considerable.

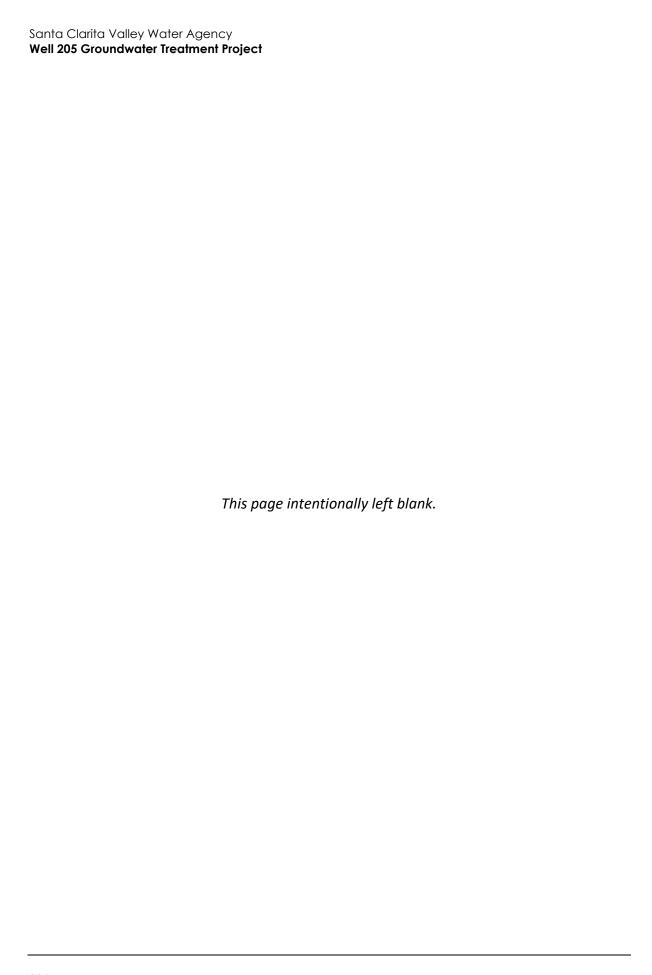
For these reasons, the project would not result in a considerable contribution to any cumulative effects significant or otherwise. Impacts would be less than significant with mitigation incorporated.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

In general, impacts to human beings are associated with air quality, hazards and hazardous materials, and noise impacts. As detailed in the preceding sections, the project would not result, either directly or indirectly, in substantial adverse effects related to air quality, hazards and hazardous materials, or noise with implementation of Mitigation Measures HAZ-1 and HAZ-2. Therefore, impacts to human beings would be less than significant with mitigation incorporated.

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List of Preparers

Rincon Consultants, Inc. prepared this IS-MND under contract to the Santa Clarita Valley Water Agency. Persons involved in data gathering analysis, project management, and quality control are listed below.

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Air Quality and Greenhouse Gas Modeling Results

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SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

SCV Water Well 205 Groundwater Treatment Facility - AQ

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	33.00	1000sqft	0.76	33,000.00	0

1.2 Other Project Characteristics

 Urbanization
 Urban
 Wind Speed (m/s)
 2.2
 Precipitation Freq (Days)
 31

 Climate Zone
 9
 Operational Year
 2024

Utility Company Southern California Edison

 CO2 Intensity
 390.98
 CH4 Intensity
 0.033
 N20 Intensity
 0.004

 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Extended construction phases into 12-month duration. Extended architectural coating to last 3 months of building construction to reflect realistic conditions.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT -

Grading - Per PD, 300 cy of soil import. Assumed to be during grading phase.

Vehicle Trips - AQ worst-case: 8 one-way trips per day/33 = 0.24 trips per 1,000 sf per day.

Vehicle Emission Factors -

SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Area Mitigation - SCAQMD Rule 1113 - rust preventative coatings

Fleet Mix - Assumed 25% LDT1 and 75% MDV for AQ run

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	80.00
tblConstructionPhase	NumDays	100.00	220.00
tblConstructionPhase	NumDays	2.00	20.00
tblConstructionPhase	NumDays	5.00	15.00
tblConstructionPhase	NumDays	1.00	10.00
tblFleetMix	HHD	9.2090e-003	0.00
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDT1	0.06	0.25
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	6.4480e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.13	0.75
tblFleetMix	МН	3.7210e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	8.1000e-004	0.00
tblFleetMix	SBUS	7.5100e-004	0.00
tblFleetMix	UBUS	5.0300e-004	0.00
tblGrading	MaterialImported	0.00	300.00

SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	0.24
tblVehicleTrips	SU_TR	0.00	0.24
tblVehicleTrips	WD_TR	0.00	0.24

2.0 Emissions Summary

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SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/d	day							lb/d	day		
2023	0.6847	6.9406	7.6164	0.0136	5.0051	0.3222	5.3142	2.5498	0.2965	2.8342	0.0000	1,334.940 4	1,334.940 4	0.3639	0.0202	1,349.278 9
2024	0.9494	7.4197	9.4552	0.0168	0.2220	0.3454	0.5674	0.0596	0.3227	0.3823	0.0000	1,640.223 1	1,640.223 1	0.3803	0.0178	1,655.044 5
Maximum	0.9494	7.4197	9.4552	0.0168	5.0051	0.3454	5.3142	2.5498	0.3227	2.8342	0.0000	1,640.223 1	1,640.223 1	0.3803	0.0202	1,655.044 5

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/d	day							lb/c	day		
2023	0.6847	6.9406	7.6164	0.0136	2.3013	0.3222	2.6104	1.1606	0.2965	1.4450	0.0000	1,334.940 4	1,334.940 4	0.3639	0.0202	1,349.278 9
2024	0.9494	7.4197	9.4552	0.0168	0.2220	0.3454	0.5674	0.0596	0.3227	0.3823	0.0000	1,640.223 1	1,640.223 1	0.3803	0.0178	1,655.044 5
Maximum	0.9494	7.4197	9.4552	0.0168	2.3013	0.3454	2.6104	1.1606	0.3227	1.4450	0.0000	1,640.223 1	1,640.223 1	0.3803	0.0202	1,655.044 5

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SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	51.73	0.00	45.97	53.24	0.00	43.19	0.00	0.00	0.00	0.00	0.00	0.00

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SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/day											
Area	0.0145	3.0000e- 005	3.3600e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005		7.2200e- 003	7.2200e- 003	2.0000e- 005		7.6900e- 003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0154	0.0163	0.1857	5.4000e- 004	0.0505	3.0000e- 004	0.0508	0.0134	2.8000e- 004	0.0137		55.2177	55.2177	1.8600e- 003	1.6400e- 003	55.7521
Total	0.0299	0.0163	0.1891	5.4000e- 004	0.0505	3.1000e- 004	0.0509	0.0134	2.9000e- 004	0.0137		55.2249	55.2249	1.8800e- 003	1.6400e- 003	55.7598

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day												lb/c	lay		
Area	0.0145	3.0000e- 005	3.3600e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005		7.2200e- 003	7.2200e- 003	2.0000e- 005		7.6900e- 003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0154	0.0163	0.1857	5.4000e- 004	0.0505	3.0000e- 004	0.0508	0.0134	2.8000e- 004	0.0137		55.2177	55.2177	1.8600e- 003	1.6400e- 003	55.7521
Total	0.0299	0.0163	0.1891	5.4000e- 004	0.0505	3.1000e- 004	0.0509	0.0134	2.9000e- 004	0.0137		55.2249	55.2249	1.8800e- 003	1.6400e- 003	55.7598

SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2023	6/14/2023	5	10	
2	Grading	Grading	6/15/2023	7/12/2023	5	20	
3	Building Construction	Building Construction	7/13/2023	5/15/2024	5	220	
4	Architectural Coating	Architectural Coating	1/25/2024	5/15/2024	5	80	
5	Paving	Paving	5/17/2024	6/6/2024	5	15	

Acres of Grading (Site Preparation Phase): 5

Acres of Grading (Grading Phase): 7.5

Acres of Paving: 0.76

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,980 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	2	5.00	0.00	38.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	14.00	5.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5348	6.1887	3.9239	9.7300e- 003		0.2266	0.2266		0.2084	0.2084		942.4317	942.4317	0.3048		950.0517
Total	0.5348	6.1887	3.9239	9.7300e- 003	0.5303	0.2266	0.7568	0.0573	0.2084	0.2657		942.4317	942.4317	0.3048		950.0517

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0169	0.0117	0.1592	4.6000e- 004	0.0559	3.1000e- 004	0.0562	0.0148	2.9000e- 004	0.0151		47.1925	47.1925	1.2200e- 003	1.2000e- 003	47.5801
Total	0.0169	0.0117	0.1592	4.6000e- 004	0.0559	3.1000e- 004	0.0562	0.0148	2.9000e- 004	0.0151		47.1925	47.1925	1.2200e- 003	1.2000e- 003	47.5801

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SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Fugitive Dust					0.2386	0.0000	0.2386	0.0258	0.0000	0.0258			0.0000		 	0.0000
Off-Road	0.5348	6.1887	3.9239	9.7300e- 003		0.2266	0.2266		0.2084	0.2084	0.0000	942.4317	942.4317	0.3048	 	950.0517
Total	0.5348	6.1887	3.9239	9.7300e- 003	0.2386	0.2266	0.4652	0.0258	0.2084	0.2342	0.0000	942.4317	942.4317	0.3048		950.0517

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0169	0.0117	0.1592	4.6000e- 004	0.0559	3.1000e- 004	0.0562	0.0148	2.9000e- 004	0.0151		47.1925	47.1925	1.2200e- 003	1.2000e- 003	47.5801
Total	0.0169	0.0117	0.1592	4.6000e- 004	0.0559	3.1000e- 004	0.0562	0.0148	2.9000e- 004	0.0151		47.1925	47.1925	1.2200e- 003	1.2000e- 003	47.5801

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2023
<u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Fugitive Dust					4.9160	0.0000	4.9160	2.5259	0.0000	2.5259			0.0000			0.0000
Off-Road	0.6459	6.6891	4.2822	9.1300e- 003		0.3070	0.3070		0.2825	0.2825		884.1300	884.1300	0.2860		891.2786
Total	0.6459	6.6891	4.2822	9.1300e- 003	4.9160	0.3070	5.2230	2.5259	0.2825	2.8083		884.1300	884.1300	0.2860		891.2786

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	3.8200e- 003	0.2398	0.0653	1.0900e- 003	0.0332	1.7400e- 003	0.0350	9.1100e- 003	1.6600e- 003	0.0108		119.5420	119.5420	6.6200e- 003	0.0190	125.3672
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0169	0.0117	0.1592	4.6000e- 004	0.0559	3.1000e- 004	0.0562	0.0148	2.9000e- 004	0.0151		47.1925	47.1925	1.2200e- 003	1.2000e- 003	47.5801
Total	0.0207	0.2515	0.2245	1.5500e- 003	0.0891	2.0500e- 003	0.0912	0.0239	1.9500e- 003	0.0259		166.7344	166.7344	7.8400e- 003	0.0202	172.9473

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2023

<u>Mitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Fugitive Dust	: : :				2.2122	0.0000	2.2122	1.1366	0.0000	1.1366			0.0000			0.0000
Off-Road	0.6459	6.6891	4.2822	9.1300e- 003		0.3070	0.3070		0.2825	0.2825	0.0000	884.1300	884.1300	0.2860		891.2786
Total	0.6459	6.6891	4.2822	9.1300e- 003	2.2122	0.3070	2.5192	1.1366	0.2825	1.4191	0.0000	884.1300	884.1300	0.2860		891.2786

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	3.8200e- 003	0.2398	0.0653	1.0900e- 003	0.0332	1.7400e- 003	0.0350	9.1100e- 003	1.6600e- 003	0.0108		119.5420	119.5420	6.6200e- 003	0.0190	125.3672
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0169	0.0117	0.1592	4.6000e- 004	0.0559	3.1000e- 004	0.0562	0.0148	2.9000e- 004	0.0151		47.1925	47.1925	1.2200e- 003	1.2000e- 003	47.5801
Total	0.0207	0.2515	0.2245	1.5500e- 003	0.0891	2.0500e- 003	0.0912	0.0239	1.9500e- 003	0.0259		166.7344	166.7344	7.8400e- 003	0.0202	172.9473

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SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946		1,104.608 9	1,104.608 9	0.3573		1,113.540 2	
Total	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946		1,104.608 9	1,104.608 9	0.3573		1,113.540 2	

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e			
Category	lb/day											lb/day							
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000			
Vendor	5.2900e- 003	0.1905	0.0738	9.1000e- 004	0.0320	1.0600e- 003	0.0331	9.2200e- 003	1.0200e- 003	0.0102		98.1927	98.1927	3.2800e- 003	0.0142	102.5145			
Worker	0.0472	0.0328	0.4456	1.2900e- 003	0.1565	8.8000e- 004	0.1574	0.0415	8.1000e- 004	0.0423		132.1389	132.1389	3.4000e- 003	3.3600e- 003	133.2242			
Total	0.0525	0.2233	0.5194	2.2000e- 003	0.1885	1.9400e- 003	0.1905	0.0507	1.8300e- 003	0.0525		230.3315	230.3315	6.6800e- 003	0.0176	235.7387			

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e		
Category	lb/day										lb/day							
Off-Road	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203	 	0.2946	0.2946	0.0000	1,104.608 9	1,104.608 9	0.3573		1,113.540 2		
Total	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946	0.0000	1,104.608 9	1,104.608 9	0.3573		1,113.540 2		

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e			
Category	lb/day											lb/day							
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000			
Vendor	5.2900e- 003	0.1905	0.0738	9.1000e- 004	0.0320	1.0600e- 003	0.0331	9.2200e- 003	1.0200e- 003	0.0102		98.1927	98.1927	3.2800e- 003	0.0142	102.5145			
Worker	0.0472	0.0328	0.4456	1.2900e- 003	0.1565	8.8000e- 004	0.1574	0.0415	8.1000e- 004	0.0423		132.1389	132.1389	3.4000e- 003	3.3600e- 003	133.2242			
Total	0.0525	0.2233	0.5194	2.2000e- 003	0.1885	1.9400e- 003	0.1905	0.0507	1.8300e- 003	0.0525		230.3315	230.3315	6.6800e- 003	0.0176	235.7387			

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SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598		1,104.983 4	1,104.983 4	0.3574		1,113.917 7
Total	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598		1,104.983 4	1,104.983 4	0.3574		1,113.917 7

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.1600e- 003	0.1914	0.0726	9.0000e- 004	0.0320	1.0600e- 003	0.0331	9.2200e- 003	1.0200e- 003	0.0102		96.7830	96.7830	3.2800e- 003	0.0140	101.0498
Worker	0.0442	0.0293	0.4159	1.2500e- 003	0.1565	8.4000e- 004	0.1573	0.0415	7.8000e- 004	0.0423		129.3013	129.3013	3.0900e- 003	3.1200e- 003	130.3093
Total	0.0494	0.2207	0.4885	2.1500e- 003	0.1885	1.9000e- 003	0.1904	0.0507	1.8000e- 003	0.0525		226.0842	226.0842	6.3700e- 003	0.0172	231.3591

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SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824	 	0.2598	0.2598	0.0000	1,104.983 4	1,104.983 4	0.3574		1,113.917 7
Total	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598	0.0000	1,104.983 4	1,104.983 4	0.3574		1,113.917 7

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.1600e- 003	0.1914	0.0726	9.0000e- 004	0.0320	1.0600e- 003	0.0331	9.2200e- 003	1.0200e- 003	0.0102		96.7830	96.7830	3.2800e- 003	0.0140	101.0498
Worker	0.0442	0.0293	0.4159	1.2500e- 003	0.1565	8.4000e- 004	0.1573	0.0415	7.8000e- 004	0.0423		129.3013	129.3013	3.0900e- 003	3.1200e- 003	130.3093
Total	0.0494	0.2207	0.4885	2.1500e- 003	0.1885	1.9000e- 003	0.1904	0.0507	1.8000e- 003	0.0525		226.0842	226.0842	6.3700e- 003	0.0172	231.3591

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SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Architectural Coating - 2024 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Archit. Coating	0.1147					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e- 003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	0.2955	1.2188	1.8101	2.9700e- 003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4700e- 003	6.2800e- 003	0.0891	2.7000e- 004	0.0335	1.8000e- 004	0.0337	8.8900e- 003	1.7000e- 004	9.0600e- 003		27.7074	27.7074	6.6000e- 004	6.7000e- 004	27.9234
Total	9.4700e- 003	6.2800e- 003	0.0891	2.7000e- 004	0.0335	1.8000e- 004	0.0337	8.8900e- 003	1.7000e- 004	9.0600e- 003		27.7074	27.7074	6.6000e- 004	6.7000e- 004	27.9234

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Architectural Coating - 2024 Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Archit. Coating	0.1147					0.0000	0.0000	 	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e- 003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	0.2955	1.2188	1.8101	2.9700e- 003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4700e- 003	6.2800e- 003	0.0891	2.7000e- 004	0.0335	1.8000e- 004	0.0337	8.8900e- 003	1.7000e- 004	9.0600e- 003		27.7074	27.7074	6.6000e- 004	6.7000e- 004	27.9234
Total	9.4700e- 003	6.2800e- 003	0.0891	2.7000e- 004	0.0335	1.8000e- 004	0.0337	8.8900e- 003	1.7000e- 004	9.0600e- 003		27.7074	27.7074	6.6000e- 004	6.7000e- 004	27.9234

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2024
<u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Off-Road	0.5904	5.2297	7.0314	0.0113		0.2429	0.2429		0.2269	0.2269		1,036.239 3	1,036.239 3	0.3019		1,043.785 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.5904	5.2297	7.0314	0.0113		0.2429	0.2429		0.2269	0.2269		1,036.239 3	1,036.239	0.3019		1,043.785 8

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0569	0.0377	0.5347	1.6100e- 003	0.2012	1.0900e- 003	0.2023	0.0534	1.0000e- 003	0.0544		166.2445	166.2445	3.9700e- 003	4.0200e- 003	167.5405
Total	0.0569	0.0377	0.5347	1.6100e- 003	0.2012	1.0900e- 003	0.2023	0.0534	1.0000e- 003	0.0544		166.2445	166.2445	3.9700e- 003	4.0200e- 003	167.5405

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2024

<u>Mitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Off-Road	0.5904	5.2297	7.0314	0.0113		0.2429	0.2429		0.2269	0.2269	0.0000	1,036.239 3	1,036.239 3	0.3019		1,043.785 8
Paving	0.0000] 			0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.5904	5.2297	7.0314	0.0113		0.2429	0.2429		0.2269	0.2269	0.0000	1,036.239 3	1,036.239 3	0.3019		1,043.785 8

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/d	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0569	0.0377	0.5347	1.6100e- 003	0.2012	1.0900e- 003	0.2023	0.0534	1.0000e- 003	0.0544		166.2445	166.2445	3.9700e- 003	4.0200e- 003	167.5405
Total	0.0569	0.0377	0.5347	1.6100e- 003	0.2012	1.0900e- 003	0.2023	0.0534	1.0000e- 003	0.0544		166.2445	166.2445	3.9700e- 003	4.0200e- 003	167.5405

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category													lb/c	lay		
Mitigated	0.0154	0.0163	0.1857	5.4000e- 004	0.0505	3.0000e- 004	0.0508	0.0134	2.8000e- 004	0.0137		55.2177	55.2177	1.8600e- 003	1.6400e- 003	55.7521
Unmitigated	0.0154	0.0163	0.1857	5.4000e- 004	0.0505	3.0000e- 004	0.0508	0.0134	2.8000e- 004	0.0137		55.2177	55.2177	1.8600e- 003	1.6400e- 003	55.7521

4.2 Trip Summary Information

	Avei	age Daily Trip Ra	ite	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	7.92	7.92	7.92	24,216	24,216
Total	7.92	7.92	7.92	24,216	24,216

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.000000	0.250000	0.000000	0.750000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	lay							lb/d	day		
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/d	day							lb/c	lay		
Other Non- Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	i i i	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

<u>Mitigated</u>

	NaturalGa s Use	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/d	day							lb/c	lay		
Other Non- Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Mitigated	0.0145	3.0000e- 005	3.3600e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005		7.2200e- 003	7.2200e- 003	2.0000e- 005		7.6900e- 003
Unmitigated	0.0145	3.0000e- 005	3.3600e- 003	0.0000	,	1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005		7.2200e- 003	7.2200e- 003	2.0000e- 005		7.6900e- 003

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/d	day							lb/d	day		
Architectural Coating	2.5100e- 003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0117					0.0000	0.0000	 	0.0000	0.0000			0.0000			0.0000
Landscaping	3.1000e- 004	3.0000e- 005	3.3600e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005		7.2200e- 003	7.2200e- 003	2.0000e- 005		7.6900e- 003
Total	0.0145	3.0000e- 005	3.3600e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005		7.2200e- 003	7.2200e- 003	2.0000e- 005		7.6900e- 003

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/d	day							lb/d	day		
Architectural Coating	2.5100e- 003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0117					0.0000	0.0000	 	0.0000	0.0000			0.0000			0.0000
Landscaping	3.1000e- 004	3.0000e- 005	3.3600e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005		7.2200e- 003	7.2200e- 003	2.0000e- 005		7.6900e- 003
Total	0.0145	3.0000e- 005	3.3600e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005		7.2200e- 003	7.2200e- 003	2.0000e- 005		7.6900e- 003

7.0 Water Detail

7.1 Mitigation Measures Water

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

	Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
--	----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

SCV Water Well 205 Groundwater Treatment Facility - AQ

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	33.00	1000sqft	0.76	33,000.00	0

Precipitation Freq (Days)

1.2 Other Project Characteristics

Urban

Climate Zone	9			Operational Year	2024
Utility Company	Southern California E	dison			
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

2.2

Wind Speed (m/s)

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Urbanization

Construction Phase - Extended construction phases into 12-month duration. Extended architectural coating to last 3 months of building construction to reflect realistic conditions.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT -

Grading - Per PD, 300 cy of soil import. Assumed to be during grading phase.

Vehicle Trips - AQ worst-case: 8 one-way trips per day/33 = 0.24 trips per 1,000 sf per day.

Vehicle Emission Factors -

SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Area Mitigation - SCAQMD Rule 1113 - rust preventative coatings

Fleet Mix - Assumed 25% LDT1 and 75% MDV for AQ run

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	80.00
tblConstructionPhase	NumDays	100.00	220.00
tblConstructionPhase	NumDays	2.00	20.00
tblConstructionPhase	NumDays	5.00	15.00
tblConstructionPhase	NumDays	1.00	10.00
tblFleetMix	HHD	9.2090e-003	0.00
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDT1	0.06	0.25
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	6.4480e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.13	0.75
tblFleetMix	МН	3.7210e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	8.1000e-004	0.00
tblFleetMix	SBUS	7.5100e-004	0.00
tblFleetMix	UBUS	5.0300e-004	0.00
tblGrading	MaterialImported	0.00	300.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	0.24
tblVehicleTrips	SU_TR	0.00	0.24
tblVehicleTrips	WD_TR	0.00	0.24

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/d	day							lb/c	day		
2023	0.6825	6.9287	7.6609	0.0137	5.0051	0.3222	5.3142	2.5498	0.2965	2.8342	0.0000	1,342.904 2	1,342.904 2	0.3639	0.0201	1,357.173 3
2024	0.9466	7.4076	9.5057	0.0169	0.2220	0.3454	0.5674	0.0596	0.3227	0.3823	0.0000	1,649.712 6	1,649.712 6	0.3802	0.0176	1,664.457 7
Maximum	0.9466	7.4076	9.5057	0.0169	5.0051	0.3454	5.3142	2.5498	0.3227	2.8342	0.0000	1,649.712 6	1,649.712 6	0.3802	0.0201	1,664.457 7

Mitigated Construction

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/d	day							lb/c	lay		
2023	0.6825	6.9287	7.6609	0.0137	2.3013	0.3222	2.6104	1.1606	0.2965	1.4450	0.0000	1,342.904 2	1,342.904 2	0.3639	0.0201	1,357.173 3
2024	0.9466	7.4076	9.5057	0.0169	0.2220	0.3454	0.5674	0.0596	0.3227	0.3823	0.0000	1,649.712 6	1,649.712 6	0.3802	0.0176	1,664.457 7
Maximum	0.9466	7.4076	9.5057	0.0169	2.3013	0.3454	2.6104	1.1606	0.3227	1.4450	0.0000	1,649.712 6	1,649.712 6	0.3802	0.0201	1,664.457 7

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	51.73	0.00	45.97	53.24	0.00	43.19	0.00	0.00	0.00	0.00	0.00	0.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category		lb/day											lb/day				
Area	0.0145	3.0000e- 005	3.3600e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005		7.2200e- 003	7.2200e- 003	2.0000e- 005		7.6900e- 003	
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	
Mobile	0.0165	0.0149	0.1995	5.6000e- 004	0.0505	3.0000e- 004	0.0508	0.0134	2.8000e- 004	0.0137		57.8585	57.8585	1.7800e- 003	1.5500e- 003	58.3653	
Total	0.0311	0.0149	0.2029	5.6000e- 004	0.0505	3.1000e- 004	0.0509	0.0134	2.9000e- 004	0.0137		57.8657	57.8657	1.8000e- 003	1.5500e- 003	58.3730	

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category		lb/day										lb/day					
Area	0.0145	3.0000e- 005	3.3600e- 003	0.0000		1.0000e- 005	1.0000e- 005	 	1.0000e- 005	1.0000e- 005		7.2200e- 003	7.2200e- 003	2.0000e- 005		7.6900e- 003	
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	
Mobile	0.0165	0.0149	0.1995	5.6000e- 004	0.0505	3.0000e- 004	0.0508	0.0134	2.8000e- 004	0.0137		57.8585	57.8585	1.7800e- 003	1.5500e- 003	58.3653	
Total	0.0311	0.0149	0.2029	5.6000e- 004	0.0505	3.1000e- 004	0.0509	0.0134	2.9000e- 004	0.0137		57.8657	57.8657	1.8000e- 003	1.5500e- 003	58.3730	

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2023	6/14/2023	5	10	
2	Grading	Grading	6/15/2023	7/12/2023	5	20	
3	Building Construction	Building Construction	7/13/2023	5/15/2024	5	220	
4	Architectural Coating	Architectural Coating	1/25/2024	5/15/2024	5	80	
5	Paving	Paving	5/17/2024	6/6/2024	5	15	

Acres of Grading (Site Preparation Phase): 5

Acres of Grading (Grading Phase): 7.5

Acres of Paving: 0.76

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,980 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20

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Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	2	5.00	0.00	38.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	14.00	5.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

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3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5348	6.1887	3.9239	9.7300e- 003		0.2266	0.2266		0.2084	0.2084		942.4317	942.4317	0.3048		950.0517
Total	0.5348	6.1887	3.9239	9.7300e- 003	0.5303	0.2266	0.7568	0.0573	0.2084	0.2657		942.4317	942.4317	0.3048		950.0517

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0160	0.0107	0.1759	4.9000e- 004	0.0559	3.1000e- 004	0.0562	0.0148	2.9000e- 004	0.0151		50.1000	50.1000	1.2000e- 003	1.1300e- 003	50.4667
Total	0.0160	0.0107	0.1759	4.9000e- 004	0.0559	3.1000e- 004	0.0562	0.0148	2.9000e- 004	0.0151		50.1000	50.1000	1.2000e- 003	1.1300e- 003	50.4667

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SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Fugitive Dust					0.2386	0.0000	0.2386	0.0258	0.0000	0.0258			0.0000		 	0.0000
Off-Road	0.5348	6.1887	3.9239	9.7300e- 003		0.2266	0.2266		0.2084	0.2084	0.0000	942.4317	942.4317	0.3048		950.0517
Total	0.5348	6.1887	3.9239	9.7300e- 003	0.2386	0.2266	0.4652	0.0258	0.2084	0.2342	0.0000	942.4317	942.4317	0.3048		950.0517

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0160	0.0107	0.1759	4.9000e- 004	0.0559	3.1000e- 004	0.0562	0.0148	2.9000e- 004	0.0151		50.1000	50.1000	1.2000e- 003	1.1300e- 003	50.4667
Total	0.0160	0.0107	0.1759	4.9000e- 004	0.0559	3.1000e- 004	0.0562	0.0148	2.9000e- 004	0.0151		50.1000	50.1000	1.2000e- 003	1.1300e- 003	50.4667

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SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2023
<u>Unmitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Fugitive Dust					4.9160	0.0000	4.9160	2.5259	0.0000	2.5259			0.0000			0.0000
Off-Road	0.6459	6.6891	4.2822	9.1300e- 003		0.3070	0.3070		0.2825	0.2825		884.1300	884.1300	0.2860		891.2786
Total	0.6459	6.6891	4.2822	9.1300e- 003	4.9160	0.3070	5.2230	2.5259	0.2825	2.8083		884.1300	884.1300	0.2860		891.2786

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	4.0900e- 003	0.2289	0.0644	1.0900e- 003	0.0332	1.7300e- 003	0.0350	9.1100e- 003	1.6600e- 003	0.0108		119.4075	119.4075	6.6400e- 003	0.0190	125.2266
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0160	0.0107	0.1759	4.9000e- 004	0.0559	3.1000e- 004	0.0562	0.0148	2.9000e- 004	0.0151		50.1000	50.1000	1.2000e- 003	1.1300e- 003	50.4667
Total	0.0201	0.2396	0.2402	1.5800e- 003	0.0891	2.0400e- 003	0.0912	0.0239	1.9500e- 003	0.0259		169.5075	169.5075	7.8400e- 003	0.0201	175.6933

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SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2023

<u>Mitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Fugitive Dust					2.2122	0.0000	2.2122	1.1366	0.0000	1.1366			0.0000		 	0.0000
Off-Road	0.6459	6.6891	4.2822	9.1300e- 003		0.3070	0.3070		0.2825	0.2825	0.0000	884.1300	884.1300	0.2860	 	891.2786
Total	0.6459	6.6891	4.2822	9.1300e- 003	2.2122	0.3070	2.5192	1.1366	0.2825	1.4191	0.0000	884.1300	884.1300	0.2860		891.2786

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Hauling	4.0900e- 003	0.2289	0.0644	1.0900e- 003	0.0332	1.7300e- 003	0.0350	9.1100e- 003	1.6600e- 003	0.0108		119.4075	119.4075	6.6400e- 003	0.0190	125.2266
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0160	0.0107	0.1759	4.9000e- 004	0.0559	3.1000e- 004	0.0562	0.0148	2.9000e- 004	0.0151		50.1000	50.1000	1.2000e- 003	1.1300e- 003	50.4667
Total	0.0201	0.2396	0.2402	1.5800e- 003	0.0891	2.0400e- 003	0.0912	0.0239	1.9500e- 003	0.0259		169.5075	169.5075	7.8400e- 003	0.0201	175.6933

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SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946		1,104.608 9	1,104.608 9	0.3573		1,113.540 2
Total	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946		1,104.608 9	1,104.608 9	0.3573		1,113.540 2

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day				lb/d	lay					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.5300e- 003	0.1815	0.0715	9.1000e- 004	0.0320	1.0600e- 003	0.0331	9.2200e- 003	1.0100e- 003	0.0102		98.0155	98.0155	3.2900e- 003	0.0142	102.3263
Worker	0.0447	0.0300	0.4924	1.3700e- 003	0.1565	8.8000e- 004	0.1574	0.0415	8.1000e- 004	0.0423		140.2799	140.2799	3.3600e- 003	3.1600e- 003	141.3068
Total	0.0503	0.2115	0.5639	2.2800e- 003	0.1885	1.9400e- 003	0.1904	0.0507	1.8200e- 003	0.0525		238.2953	238.2953	6.6500e- 003	0.0174	243.6331

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SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946	0.0000	1,104.608 9	1,104.608 9	0.3573		1,113.540 2
Total	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946	0.0000	1,104.608 9	1,104.608 9	0.3573		1,113.540 2

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.5300e- 003	0.1815	0.0715	9.1000e- 004	0.0320	1.0600e- 003	0.0331	9.2200e- 003	1.0100e- 003	0.0102		98.0155	98.0155	3.2900e- 003	0.0142	102.3263
Worker	0.0447	0.0300	0.4924	1.3700e- 003	0.1565	8.8000e- 004	0.1574	0.0415	8.1000e- 004	0.0423		140.2799	140.2799	3.3600e- 003	3.1600e- 003	141.3068
Total	0.0503	0.2115	0.5639	2.2800e- 003	0.1885	1.9400e- 003	0.1904	0.0507	1.8200e- 003	0.0525		238.2953	238.2953	6.6500e- 003	0.0174	243.6331

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SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598		1,104.983 4	1,104.983 4	0.3574		1,113.917 7
Total	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598		1,104.983 4	1,104.983 4	0.3574		1,113.917 7

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4000e- 003	0.1823	0.0703	9.0000e- 004	0.0320	1.0600e- 003	0.0331	9.2200e- 003	1.0100e- 003	0.0102		96.6054	96.6054	3.2900e- 003	0.0140	100.8616
Worker	0.0418	0.0268	0.4594	1.3300e- 003	0.1565	8.4000e- 004	0.1573	0.0415	7.8000e- 004	0.0423		137.2623	137.2623	3.0400e- 003	2.9500e- 003	138.2163
Total	0.0472	0.2092	0.5297	2.2300e- 003	0.1885	1.9000e- 003	0.1904	0.0507	1.7900e- 003	0.0525		233.8678	233.8678	6.3300e- 003	0.0170	239.0779

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SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824	 	0.2598	0.2598	0.0000	1,104.983 4	1,104.983 4	0.3574		1,113.917 7
Total	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598	0.0000	1,104.983 4	1,104.983 4	0.3574		1,113.917 7

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4000e- 003	0.1823	0.0703	9.0000e- 004	0.0320	1.0600e- 003	0.0331	9.2200e- 003	1.0100e- 003	0.0102		96.6054	96.6054	3.2900e- 003	0.0140	100.8616
Worker	0.0418	0.0268	0.4594	1.3300e- 003	0.1565	8.4000e- 004	0.1573	0.0415	7.8000e- 004	0.0423		137.2623	137.2623	3.0400e- 003	2.9500e- 003	138.2163
Total	0.0472	0.2092	0.5297	2.2300e- 003	0.1885	1.9000e- 003	0.1904	0.0507	1.7900e- 003	0.0525		233.8678	233.8678	6.3300e- 003	0.0170	239.0779

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SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Architectural Coating - 2024 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Archit. Coating	0.1147					0.0000	0.0000		0.0000	0.0000	i i i		0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e- 003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	0.2955	1.2188	1.8101	2.9700e- 003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/d	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.9500e- 003	5.7500e- 003	0.0984	2.9000e- 004	0.0335	1.8000e- 004	0.0337	8.8900e- 003	1.7000e- 004	9.0600e- 003		29.4134	29.4134	6.5000e- 004	6.3000e- 004	29.6178
Total	8.9500e- 003	5.7500e- 003	0.0984	2.9000e- 004	0.0335	1.8000e- 004	0.0337	8.8900e- 003	1.7000e- 004	9.0600e- 003		29.4134	29.4134	6.5000e- 004	6.3000e- 004	29.6178

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SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Architectural Coating - 2024 Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Archit. Coating	0.1147					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e- 003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	0.2955	1.2188	1.8101	2.9700e- 003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.9500e- 003	5.7500e- 003	0.0984	2.9000e- 004	0.0335	1.8000e- 004	0.0337	8.8900e- 003	1.7000e- 004	9.0600e- 003		29.4134	29.4134	6.5000e- 004	6.3000e- 004	29.6178
Total	8.9500e- 003	5.7500e- 003	0.0984	2.9000e- 004	0.0335	1.8000e- 004	0.0337	8.8900e- 003	1.7000e- 004	9.0600e- 003		29.4134	29.4134	6.5000e- 004	6.3000e- 004	29.6178

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SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2024
<u>Unmitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Off-Road	0.5904	5.2297	7.0314	0.0113		0.2429	0.2429		0.2269	0.2269		1,036.239 3	1,036.239 3	0.3019		1,043.785 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.5904	5.2297	7.0314	0.0113		0.2429	0.2429		0.2269	0.2269		1,036.239 3	1,036.239 3	0.3019		1,043.785 8

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0537	0.0345	0.5906	1.7100e- 003	0.2012	1.0900e- 003	0.2023	0.0534	1.0000e- 003	0.0544		176.4802	176.4802	3.9100e- 003	3.7900e- 003	177.7067
Total	0.0537	0.0345	0.5906	1.7100e- 003	0.2012	1.0900e- 003	0.2023	0.0534	1.0000e- 003	0.0544		176.4802	176.4802	3.9100e- 003	3.7900e- 003	177.7067

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SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2024

<u>Mitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Off-Road	0.5904	5.2297	7.0314	0.0113		0.2429	0.2429		0.2269	0.2269	0.0000	1,036.239 3	1,036.239 3	0.3019		1,043.785 8
Paving	0.0000] 			0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.5904	5.2297	7.0314	0.0113		0.2429	0.2429		0.2269	0.2269	0.0000	1,036.239 3	1,036.239 3	0.3019		1,043.785 8

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0537	0.0345	0.5906	1.7100e- 003	0.2012	1.0900e- 003	0.2023	0.0534	1.0000e- 003	0.0544		176.4802	176.4802	3.9100e- 003	3.7900e- 003	177.7067
Total	0.0537	0.0345	0.5906	1.7100e- 003	0.2012	1.0900e- 003	0.2023	0.0534	1.0000e- 003	0.0544		176.4802	176.4802	3.9100e- 003	3.7900e- 003	177.7067

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SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Mitigated	0.0165	0.0149	0.1995	5.6000e- 004	0.0505	3.0000e- 004	0.0508	0.0134	2.8000e- 004	0.0137		57.8585	57.8585	1.7800e- 003	1.5500e- 003	58.3653
Unmitigated	0.0165	0.0149	0.1995	5.6000e- 004	0.0505	3.0000e- 004	0.0508	0.0134	2.8000e- 004	0.0137		57.8585	57.8585	1.7800e- 003	1.5500e- 003	58.3653

4.2 Trip Summary Information

	Avei	age Daily Trip Ra	ite	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	7.92	7.92	7.92	24,216	24,216
Total	7.92	7.92	7.92	24,216	24,216

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.000000	0.250000	0.000000	0.750000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/d	day							lb/c	lay		
Other Non- Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/d	day							lb/c	lay		
Other Non- Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Mitigated	0.0145	3.0000e- 005	3.3600e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005		7.2200e- 003	7.2200e- 003	2.0000e- 005		7.6900e- 003
Unmitigated	0.0145	3.0000e- 005	3.3600e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005		7.2200e- 003	7.2200e- 003	2.0000e- 005		7.6900e- 003

SCV Water Well 205 Groundwater Treatment Facility - AQ - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.5100e- 003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0117					0.0000	0.0000	 	0.0000	0.0000			0.0000			0.0000
Landscaping	3.1000e- 004	3.0000e- 005	3.3600e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005		7.2200e- 003	7.2200e- 003	2.0000e- 005		7.6900e- 003
Total	0.0145	3.0000e- 005	3.3600e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005		7.2200e- 003	7.2200e- 003	2.0000e- 005		7.6900e- 003

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	lb/day											lb/day					
Architectural Coating	2.5100e- 003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Consumer Products	0.0117				 	0.0000	0.0000	 	0.0000	0.0000			0.0000			0.0000	
Landscaping	3.1000e- 004	3.0000e- 005	3.3600e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005		7.2200e- 003	7.2200e- 003	2.0000e- 005		7.6900e- 003	
Total	0.0145	3.0000e- 005	3.3600e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005		7.2200e- 003	7.2200e- 003	2.0000e- 005		7.6900e- 003	

7.0 Water Detail

7.1 Mitigation Measures Water

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type Number Hours/Day Hours/Year Horse Power Load Factor Fuel Type	Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
--	----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

SCV Water Well 205 Groundwater Treatment Facility - GHG

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	33.00	1000sqft	0.76	33,000.00	0

1.2 Other Project Characteristics

Urban

Wind Speed (m/s) Precipitation Freq (Days) 9 **Operational Year** 2024 Climate Zone Southern California Edison **Utility Company**

2.2

CO2 Intensity 390.98 **CH4 Intensity** 0.033 **N2O Intensity** 0.004 (lb/MWhr) (lb/MWhr) (lb/MWhr)

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Urbanization

Construction Phase - Extended construction phases into 12-month duration. Extended architectural coating to last 3 months of building construction to reflect realistic conditions.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Grading - Per PD, 300 cy of soil import. Assumed to be during grading phase.

Vehicle Trips - GHG: 2.08 one-way trips per day/33 = 0.06 trips per 1,000 sf per day.

Vehicle Emission Factors -

Vehicle Emission Factors -

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Vehicle Emission Factors -

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Area Mitigation - SCAQMD Rule 1113 - rust preventative coatings

Fleet Mix - Assumed 96% LDT1 and 4% MDV for GHG run

Trips and VMT -

Table Name	Column Name	Default Value	New Value		
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True		
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15		
tblConstructionPhase	NumDays	5.00	80.00		
tblConstructionPhase	NumDays	100.00	220.00		
tblConstructionPhase	NumDays	2.00	20.00		
tblConstructionPhase	NumDays	5.00	15.00		
tblConstructionPhase	NumDays	1.00	10.00		
tblFleetMix	HHD	9.2090e-003	0.00		
tblFleetMix	LDA	0.54	0.00		
tblFleetMix	LDT1	0.06	0.96		
tblFleetMix	LDT2	0.19	0.00		
tblFleetMix	LHD1	0.02	0.00		
tblFleetMix	LHD2	6.4480e-003	0.00		
tblFleetMix	MCY	0.02	0.00		
tblFleetMix	MDV	0.13	0.04		
tblFleetMix	МН	3.7210e-003	0.00		
tblFleetMix	MHD	0.01	0.00		
tblFleetMix	OBUS	8.1000e-004	0.00		
tblFleetMix	SBUS	7.5100e-004	0.00		
tblFleetMix	UBUS	5.0300e-004	0.00		
tblGrading	MaterialImported	0.00	300.00		

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	0.06
tblVehicleTrips	SU_TR	0.00	0.06
tblVehicleTrips	WD_TR	0.00	0.06

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0510	0.5056	0.5308	9.9000e- 004	0.0643	0.0239	0.0881	0.0289	0.0220	0.0509	0.0000	88.0108	88.0108	0.0242	1.1600e- 003	88.9625
2024	0.0484	0.3921	0.5037	8.9000e- 004	0.0119	0.0182	0.0301	3.1900e- 003	0.0170	0.0202	0.0000	78.6847	78.6847	0.0189	8.2000e- 004	79.3994
Maximum	0.0510	0.5056	0.5308	9.9000e- 004	0.0643	0.0239	0.0881	0.0289	0.0220	0.0509	0.0000	88.0108	88.0108	0.0242	1.1600e- 003	88.9625

Mitigated Construction

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	ear tons/yr										MT/yr					
2023	0.0510	0.5056	0.5308	9.9000e- 004	0.0358	0.0239	0.0596	0.0149	0.0220	0.0368	0.0000	88.0107	88.0107	0.0242	1.1600e- 003	88.9624
2024	0.0484	0.3921	0.5037	8.9000e- 004	0.0119	0.0182	0.0301	3.1900e- 003	0.0170	0.0202	0.0000	78.6846	78.6846	0.0189	8.2000e- 004	79.3993
Maximum	0.0510	0.5056	0.5308	9.9000e- 004	0.0358	0.0239	0.0596	0.0149	0.0220	0.0368	0.0000	88.0107	88.0107	0.0242	1.1600e- 003	88.9624

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	37.43	0.00	24.10	43.78	0.00	19.78	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
5	4-1-2023	6-30-2023	0.0771	0.0771
6	7-1-2023	9-30-2023	0.2415	0.2415
7	10-1-2023	12-31-2023	0.2407	0.2407
8	1-1-2024	3-31-2024	0.2589	0.2589
9	4-1-2024	6-30-2024	0.1786	0.1786
		Highest	0.2589	0.2589

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Area	2.6300e- 003	0.0000	4.2000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.2000e- 004	8.2000e- 004	0.0000	0.0000	8.7000e- 004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	7.5000e- 004	7.6000e- 004	9.2000e- 003	2.0000e- 005	2.2600e- 003	2.0000e- 005	2.2700e- 003	6.0000e- 004	1.0000e- 005	6.1000e- 004	0.0000	1.9028	1.9028	8.0000e- 005	6.0000e- 005	1.9230
Waste	 					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water	 					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.3800e- 003	7.6000e- 004	9.6200e- 003	2.0000e- 005	2.2600e- 003	2.0000e- 005	2.2700e- 003	6.0000e- 004	1.0000e- 005	6.1000e- 004	0.0000	1.9036	1.9036	8.0000e- 005	6.0000e- 005	1.9239

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	⁻/yr		
Area	2.6300e- 003	0.0000	4.2000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.2000e- 004	8.2000e- 004	0.0000	0.0000	8.7000e- 004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	7.5000e- 004	7.6000e- 004	9.2000e- 003	2.0000e- 005	2.2600e- 003	2.0000e- 005	2.2700e- 003	6.0000e- 004	1.0000e- 005	6.1000e- 004	0.0000	1.9028	1.9028	8.0000e- 005	6.0000e- 005	1.9230
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water	 					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.3800e- 003	7.6000e- 004	9.6200e- 003	2.0000e- 005	2.2600e- 003	2.0000e- 005	2.2700e- 003	6.0000e- 004	1.0000e- 005	6.1000e- 004	0.0000	1.9036	1.9036	8.0000e- 005	6.0000e- 005	1.9239

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2023	6/14/2023	5	10	
2	Grading	Grading	6/15/2023	7/12/2023	5	20	
3	Building Construction	Building Construction	7/13/2023	5/15/2024	5	220	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	1	Architectural Coating	Architectural Coating		5/15/2024	5	80	
5		Paving	Paving	T	6/6/2024	5	15	

Acres of Grading (Site Preparation Phase): 5

Acres of Grading (Grading Phase): 7.5

Acres of Paving: 0.76

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,980 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	2	5.00	0.00	38.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Building Construction	5	14.00	5.00	0.00	14.70	6.90	20.00 LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	14.70	6.90	20.00 LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00 LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust			 		2.6500e- 003	0.0000	2.6500e- 003	2.9000e- 004	0.0000	2.9000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6700e- 003	0.0309	0.0196	5.0000e- 005		1.1300e- 003	1.1300e- 003	 	1.0400e- 003	1.0400e- 003	0.0000	4.2748	4.2748	1.3800e- 003	0.0000	4.3094
Total	2.6700e- 003	0.0309	0.0196	5.0000e- 005	2.6500e- 003	1.1300e- 003	3.7800e- 003	2.9000e- 004	1.0400e- 003	1.3300e- 003	0.0000	4.2748	4.2748	1.3800e- 003	0.0000	4.3094

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3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/уг		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e- 005	6.0000e- 005	8.2000e- 004	0.0000	2.7000e- 004	0.0000	2.8000e- 004	7.0000e- 005	0.0000	7.0000e- 005	0.0000	0.2173	0.2173	1.0000e- 005	1.0000e- 005	0.2191
Total	8.0000e- 005	6.0000e- 005	8.2000e- 004	0.0000	2.7000e- 004	0.0000	2.8000e- 004	7.0000e- 005	0.0000	7.0000e- 005	0.0000	0.2173	0.2173	1.0000e- 005	1.0000e- 005	0.2191

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust			 		1.1900e- 003	0.0000	1.1900e- 003	1.3000e- 004	0.0000	1.3000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6700e- 003	0.0309	0.0196	5.0000e- 005		1.1300e- 003	1.1300e- 003		1.0400e- 003	1.0400e- 003	0.0000	4.2748	4.2748	1.3800e- 003	0.0000	4.3094
Total	2.6700e- 003	0.0309	0.0196	5.0000e- 005	1.1900e- 003	1.1300e- 003	2.3200e- 003	1.3000e- 004	1.0400e- 003	1.1700e- 003	0.0000	4.2748	4.2748	1.3800e- 003	0.0000	4.3094

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3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e- 005	6.0000e- 005	8.2000e- 004	0.0000	2.7000e- 004	0.0000	2.8000e- 004	7.0000e- 005	0.0000	7.0000e- 005	0.0000	0.2173	0.2173	1.0000e- 005	1.0000e- 005	0.2191
Total	8.0000e- 005	6.0000e- 005	8.2000e- 004	0.0000	2.7000e- 004	0.0000	2.8000e- 004	7.0000e- 005	0.0000	7.0000e- 005	0.0000	0.2173	0.2173	1.0000e- 005	1.0000e- 005	0.2191

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					0.0492	0.0000	0.0492	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4600e- 003	0.0669	0.0428	9.0000e- 005		3.0700e- 003	3.0700e- 003		2.8200e- 003	2.8200e- 003	0.0000	8.0207	8.0207	2.5900e- 003	0.0000	8.0855
Total	6.4600e- 003	0.0669	0.0428	9.0000e- 005	0.0492	3.0700e- 003	0.0522	0.0253	2.8200e- 003	0.0281	0.0000	8.0207	8.0207	2.5900e- 003	0.0000	8.0855

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3.3 Grading - 2023
<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	4.0000e- 005	2.4100e- 003	6.5000e- 004	1.0000e- 005	3.3000e- 004	2.0000e- 005	3.4000e- 004	9.0000e- 005	2.0000e- 005	1.1000e- 004	0.0000	1.0838	1.0838	6.0000e- 005	1.7000e- 004	1.1366
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e- 004	1.2000e- 004	1.6400e- 003	0.0000	5.5000e- 004	0.0000	5.5000e- 004	1.5000e- 004	0.0000	1.5000e- 004	0.0000	0.4347	0.4347	1.0000e- 005	1.0000e- 005	0.4382
Total	2.0000e- 004	2.5300e- 003	2.2900e- 003	1.0000e- 005	8.8000e- 004	2.0000e- 005	8.9000e- 004	2.4000e- 004	2.0000e- 005	2.6000e- 004	0.0000	1.5184	1.5184	7.0000e- 005	1.8000e- 004	1.5748

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust			 		0.0221	0.0000	0.0221	0.0114	0.0000	0.0114	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4600e- 003	0.0669	0.0428	9.0000e- 005		3.0700e- 003	3.0700e- 003		2.8200e- 003	2.8200e- 003	0.0000	8.0207	8.0207	2.5900e- 003	0.0000	8.0855
Total	6.4600e- 003	0.0669	0.0428	9.0000e- 005	0.0221	3.0700e- 003	0.0252	0.0114	2.8200e- 003	0.0142	0.0000	8.0207	8.0207	2.5900e- 003	0.0000	8.0855

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3.3 Grading - 2023

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	4.0000e- 005	2.4100e- 003	6.5000e- 004	1.0000e- 005	3.3000e- 004	2.0000e- 005	3.4000e- 004	9.0000e- 005	2.0000e- 005	1.1000e- 004	0.0000	1.0838	1.0838	6.0000e- 005	1.7000e- 004	1.1366
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e- 004	1.2000e- 004	1.6400e- 003	0.0000	5.5000e- 004	0.0000	5.5000e- 004	1.5000e- 004	0.0000	1.5000e- 004	0.0000	0.4347	0.4347	1.0000e- 005	1.0000e- 005	0.4382
Total	2.0000e- 004	2.5300e- 003	2.2900e- 003	1.0000e- 005	8.8000e- 004	2.0000e- 005	8.9000e- 004	2.4000e- 004	2.0000e- 005	2.6000e- 004	0.0000	1.5184	1.5184	7.0000e- 005	1.8000e- 004	1.5748

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.0386	0.3915	0.4329	7.0000e- 004		0.0195	0.0195		0.0180	0.0180	0.0000	61.1271	61.1271	0.0198	0.0000	61.6214
Total	0.0386	0.3915	0.4329	7.0000e- 004		0.0195	0.0195		0.0180	0.0180	0.0000	61.1271	61.1271	0.0198	0.0000	61.6214

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3.4 Building Construction - 2023 <u>Unmitigated Construction Off-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3000e- 004	0.0116	4.4200e- 003	6.0000e- 005	1.9200e- 003	6.0000e- 005	1.9900e- 003	5.6000e- 004	6.0000e- 005	6.2000e- 004	0.0000	5.4281	5.4281	1.8000e- 004	7.9000e- 004	5.6671
Worker	2.6600e- 003	2.0500e- 003	0.0279	8.0000e- 005	9.3700e- 003	5.0000e- 005	9.4200e- 003	2.4900e- 003	5.0000e- 005	2.5400e- 003	0.0000	7.4242	7.4242	1.9000e- 004	1.9000e- 004	7.4852
Total	2.9900e- 003	0.0137	0.0324	1.4000e- 004	0.0113	1.1000e- 004	0.0114	3.0500e- 003	1.1000e- 004	3.1600e- 003	0.0000	12.8524	12.8524	3.7000e- 004	9.8000e- 004	13.1522

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.0386	0.3915	0.4329	7.0000e- 004		0.0195	0.0195	 	0.0180	0.0180	0.0000	61.1271	61.1271	0.0198	0.0000	61.6213
Total	0.0386	0.3915	0.4329	7.0000e- 004		0.0195	0.0195		0.0180	0.0180	0.0000	61.1271	61.1271	0.0198	0.0000	61.6213

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3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3000e- 004	0.0116	4.4200e- 003	6.0000e- 005	1.9200e- 003	6.0000e- 005	1.9900e- 003	5.6000e- 004	6.0000e- 005	6.2000e- 004	0.0000	5.4281	5.4281	1.8000e- 004	7.9000e- 004	5.6671
Worker	2.6600e- 003	2.0500e- 003	0.0279	8.0000e- 005	9.3700e- 003	5.0000e- 005	9.4200e- 003	2.4900e- 003	5.0000e- 005	2.5400e- 003	0.0000	7.4242	7.4242	1.9000e- 004	1.9000e- 004	7.4852
Total	2.9900e- 003	0.0137	0.0324	1.4000e- 004	0.0113	1.1000e- 004	0.0114	3.0500e- 003	1.1000e- 004	3.1600e- 003	0.0000	12.8524	12.8524	3.7000e- 004	9.8000e- 004	13.1522

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.0292	0.2927	0.3463	5.6000e- 004		0.0138	0.0138		0.0127	0.0127	0.0000	49.1188	49.1188	0.0159	0.0000	49.5159
Total	0.0292	0.2927	0.3463	5.6000e- 004		0.0138	0.0138		0.0127	0.0127	0.0000	49.1188	49.1188	0.0159	0.0000	49.5159

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3.4 Building Construction - 2024 <u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/уг		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6000e- 004	9.3800e- 003	3.5000e- 003	4.0000e- 005	1.5500e- 003	5.0000e- 005	1.6000e- 003	4.5000e- 004	5.0000e- 005	5.0000e- 004	0.0000	4.2976	4.2976	1.5000e- 004	6.2000e- 004	4.4871
Worker	2.0000e- 003	1.4700e- 003	0.0210	6.0000e- 005	7.5300e- 003	4.0000e- 005	7.5700e- 003	2.0000e- 003	4.0000e- 005	2.0400e- 003	0.0000	5.8356	5.8356	1.4000e- 004	1.4000e- 004	5.8810
Total	2.2600e- 003	0.0109	0.0245	1.0000e- 004	9.0800e- 003	9.0000e- 005	9.1700e- 003	2.4500e- 003	9.0000e- 005	2.5400e- 003	0.0000	10.1332	10.1332	2.9000e- 004	7.6000e- 004	10.3682

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.0292	0.2927	0.3463	5.6000e- 004		0.0138	0.0138		0.0127	0.0127	0.0000	49.1187	49.1187	0.0159	0.0000	49.5159
Total	0.0292	0.2927	0.3463	5.6000e- 004		0.0138	0.0138		0.0127	0.0127	0.0000	49.1187	49.1187	0.0159	0.0000	49.5159

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3.4 Building Construction - 2024 Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6000e- 004	9.3800e- 003	3.5000e- 003	4.0000e- 005	1.5500e- 003	5.0000e- 005	1.6000e- 003	4.5000e- 004	5.0000e- 005	5.0000e- 004	0.0000	4.2976	4.2976	1.5000e- 004	6.2000e- 004	4.4871
Worker	2.0000e- 003	1.4700e- 003	0.0210	6.0000e- 005	7.5300e- 003	4.0000e- 005	7.5700e- 003	2.0000e- 003	4.0000e- 005	2.0400e- 003	0.0000	5.8356	5.8356	1.4000e- 004	1.4000e- 004	5.8810
Total	2.2600e- 003	0.0109	0.0245	1.0000e- 004	9.0800e- 003	9.0000e- 005	9.1700e- 003	2.4500e- 003	9.0000e- 005	2.5400e- 003	0.0000	10.1332	10.1332	2.9000e- 004	7.6000e- 004	10.3682

3.5 Architectural Coating - 2024 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Archit. Coating	4.5900e- 003		 			0.0000	0.0000	 	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.2300e- 003	0.0488	0.0724	1.2000e- 004		2.4400e- 003	2.4400e- 003	 	2.4400e- 003	2.4400e- 003	0.0000	10.2130	10.2130	5.8000e- 004	0.0000	10.2274
Total	0.0118	0.0488	0.0724	1.2000e- 004		2.4400e- 003	2.4400e- 003		2.4400e- 003	2.4400e- 003	0.0000	10.2130	10.2130	5.8000e- 004	0.0000	10.2274

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3.5 Architectural Coating - 2024 <u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/уг		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e- 004	2.6000e- 004	3.6600e- 003	1.0000e- 005	1.3200e- 003	1.0000e- 005	1.3200e- 003	3.5000e- 004	1.0000e- 005	3.6000e- 004	0.0000	1.0208	1.0208	2.0000e- 005	2.0000e- 005	1.0288
Total	3.5000e- 004	2.6000e- 004	3.6600e- 003	1.0000e- 005	1.3200e- 003	1.0000e- 005	1.3200e- 003	3.5000e- 004	1.0000e- 005	3.6000e- 004	0.0000	1.0208	1.0208	2.0000e- 005	2.0000e- 005	1.0288

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Archit. Coating	4.5900e- 003		 	 		0.0000	0.0000	 	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.2300e- 003	0.0488	0.0724	1.2000e- 004		2.4400e- 003	2.4400e- 003		2.4400e- 003	2.4400e- 003	0.0000	10.2130	10.2130	5.8000e- 004	0.0000	10.2274
Total	0.0118	0.0488	0.0724	1.2000e- 004		2.4400e- 003	2.4400e- 003		2.4400e- 003	2.4400e- 003	0.0000	10.2130	10.2130	5.8000e- 004	0.0000	10.2274

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3.5 Architectural Coating - 2024 Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e- 004	2.6000e- 004	3.6600e- 003	1.0000e- 005	1.3200e- 003	1.0000e- 005	1.3200e- 003	3.5000e- 004	1.0000e- 005	3.6000e- 004	0.0000	1.0208	1.0208	2.0000e- 005	2.0000e- 005	1.0288
Total	3.5000e- 004	2.6000e- 004	3.6600e- 003	1.0000e- 005	1.3200e- 003	1.0000e- 005	1.3200e- 003	3.5000e- 004	1.0000e- 005	3.6000e- 004	0.0000	1.0208	1.0208	2.0000e- 005	2.0000e- 005	1.0288

3.6 Paving - 2024 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	4.4300e- 003	0.0392	0.0527	8.0000e- 005		1.8200e- 003	1.8200e- 003	 	1.7000e- 003	1.7000e- 003	0.0000	7.0505	7.0505	2.0500e- 003	0.0000	7.1018
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.4300e- 003	0.0392	0.0527	8.0000e- 005		1.8200e- 003	1.8200e- 003		1.7000e- 003	1.7000e- 003	0.0000	7.0505	7.0505	2.0500e- 003	0.0000	7.1018

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3.6 Paving - 2024
<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e- 004	2.9000e- 004	4.1200e- 003	1.0000e- 005	1.4800e- 003	1.0000e- 005	1.4900e- 003	3.9000e- 004	1.0000e- 005	4.0000e- 004	0.0000	1.1484	1.1484	3.0000e- 005	3.0000e- 005	1.1574
Total	3.9000e- 004	2.9000e- 004	4.1200e- 003	1.0000e- 005	1.4800e- 003	1.0000e- 005	1.4900e- 003	3.9000e- 004	1.0000e- 005	4.0000e- 004	0.0000	1.1484	1.1484	3.0000e- 005	3.0000e- 005	1.1574

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	4.4300e- 003	0.0392	0.0527	8.0000e- 005		1.8200e- 003	1.8200e- 003		1.7000e- 003	1.7000e- 003	0.0000	7.0504	7.0504	2.0500e- 003	0.0000	7.1018
Paving	0.0000			 		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.4300e- 003	0.0392	0.0527	8.0000e- 005		1.8200e- 003	1.8200e- 003		1.7000e- 003	1.7000e- 003	0.0000	7.0504	7.0504	2.0500e- 003	0.0000	7.1018

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3.6 Paving - 2024

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e- 004	2.9000e- 004	4.1200e- 003	1.0000e- 005	1.4800e- 003	1.0000e- 005	1.4900e- 003	3.9000e- 004	1.0000e- 005	4.0000e- 004	0.0000	1.1484	1.1484	3.0000e- 005	3.0000e- 005	1.1574
Total	3.9000e- 004	2.9000e- 004	4.1200e- 003	1.0000e- 005	1.4800e- 003	1.0000e- 005	1.4900e- 003	3.9000e- 004	1.0000e- 005	4.0000e- 004	0.0000	1.1484	1.1484	3.0000e- 005	3.0000e- 005	1.1574

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4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Mitigated	7.5000e- 004	7.6000e- 004	9.2000e- 003	2.0000e- 005	2.2600e- 003	2.0000e- 005	2.2700e- 003	6.0000e- 004	1.0000e- 005	6.1000e- 004	0.0000	1.9028	1.9028	8.0000e- 005	6.0000e- 005	1.9230
	7.5000e- 004	7.6000e- 004	9.2000e- 003	2.0000e- 005	2.2600e- 003	2.0000e- 005	2.2700e- 003	6.0000e- 004	1.0000e- 005	6.1000e- 004	0.0000	1.9028	1.9028	8.0000e- 005	6.0000e- 005	1.9230

4.2 Trip Summary Information

	Avei	age Daily Trip Ra	ite	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	1.98	1.98	1.98	6,054	6,054
Total	1.98	1.98	1.98	6,054	6,054

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	МН
Other Non-Asphalt Surfaces	0.000000	0.960000	0.000000	0.040000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	 	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					ton	s/yr							MT	/yr		
Other Non- Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					ton	s/yr							MT	/yr		
Other Non- Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	/yr	
Other Non- Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	/yr	
Other Non- Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Exterior

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	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Mitigated	2.6300e- 003	0.0000	4.2000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.2000e- 004	8.2000e- 004	0.0000	0.0000	8.7000e- 004
Unmitigated	2.6300e- 003	0.0000	4.2000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.2000e- 004	8.2000e- 004	0.0000	0.0000	8.7000e- 004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					ton	s/yr							MT	/yr		
Architectural Coating	4.6000e- 004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.1300e- 003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e- 005	0.0000	4.2000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.2000e- 004	8.2000e- 004	0.0000	0.0000	8.7000e- 004
Total	2.6300e- 003	0.0000	4.2000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.2000e- 004	8.2000e- 004	0.0000	0.0000	8.7000e- 004

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					ton	s/yr							МТ	/yr		
Architectural Coating	4.6000e- 004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.1300e- 003				 	0.0000	0.0000	 	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e- 005	0.0000	4.2000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.2000e- 004	8.2000e- 004	0.0000	0.0000	8.7000e- 004
Total	2.6300e- 003	0.0000	4.2000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.2000e- 004	8.2000e- 004	0.0000	0.0000	8.7000e- 004

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category		МТ	/yr	
Mitigated	il 0.0000 il il	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use Unmitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	-/yr	
Other Non- Asphalt Surfaces	0/0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		MT	/yr	
Other Non- Asphalt Surfaces	0/0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
		MT	/yr	
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	• 0.0000	0.0000	0.0000	0.0000

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8.2 Waste by Land Use

Unmitigated

0.0000	0.0000	0.0000	0.0000		Total
0.0000	0.0000	0.0000	0.0000	0	Other Non- Asphalt Surfaces
	-/yr	MT/yr		tons	Land Use
CO2e	N20	CH4	Total CO2	Waste Disposed	

Mitigated

0.0000	0.0000	0.0000	0.0000		Total
0.0000	0.0000	0.0000	0.0000	0	Other Non- Asphalt Surfaces
	-/yr	MT/yr		tons	Land Use
CO2e	N20	CH4	Total CO2	Waste Disposed	

9.0 Operational Offroad

Equipment Type	
Number	
Hours/Day	
Days/Year	
Horse Power	
Load Factor	
Fuel Type	

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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Equipment Type	Number	пеат приграу	neat input/ real	boller Rating	ruei Type
					4

User Defined Equipment

Equipment Type	Number
Equipment Type	Number

11.0 Vegetation

Greenhouse Gas Calculations

Well 205 Groundwater Treatment Facility

Equipment Type	Annual	SCE Emission Factor	SCE Emission
	Megawatt Hours	(pounds	Factor (MT
	(MWh)	CO ₂ e/MWh)	CO ₂ e/MWh)
Water Pump	4,300.00	401.00	0.181889396

Equation:

Annual MWh * SCE Emission Factor = Annual GHG Emissions

Annual Operational	
GHG Emissions	Units
782.12	MT CO₂e/year

Footnotes:

SCE: Southern California Edison; MT: metric tons



Biological Resources Assessment and Coastal California Gnatcatcher Focused Survey Report



February 22, 2022

Project No: 20-10090

Rick Vasilopulos Water Resources Planner Santa Clarita Valley Water Agency 26501 Summit Circle Santa Clarita, CA 91350

Via email: rvasilopulos@scvwa.org

Subject: Biological Resources Assessment for the Well 205 Groundwater Treatment Project, Santa

Clarita, Los Angeles County, California

Dear Mr. Vasilopulos,

This report documents the findings of a Biological Resources Assessment (BRA) conducted by Rincon Consultants, Inc. (Rincon), for the proposed Well 205 Groundwater Treatment Project (project). The project is located in the city of Santa Clarita, California. The assessment was completed to document existing site conditions via desktop analysis and field survey and to evaluate potential impacts to sensitive biological resources based upon current project plans. Rincon understands the BRA will support an Initial Study-Mitigated Negative Declaration (IS-MND) being prepared for California Environmental Quality Act (CEQA) review of the project. As such, the BRA is prepared in accordance with the CEQA Guidelines Appendix G Initial Study Checklist for Biological Resources. It assesses the potential for sensitive biological resources on the project site, evaluates anticipated project impacts to these resources if present, and recommends (as appropriate) avoidance and minimization measures to reduce potential impacts to a less-than-significant level.

Project Location and Description

The project site is located at the existing Santa Clarita Valley Water Agency (SCV Water) Well 205 site at Assessor's Parcel Number 2861-066-002 on Valencia Boulevard near McBean Parkway in Santa Clarita, Los Angeles County, California (Attachment A, Figure 1 and Figure 2). The project site occurs in an area zoned by the city of Santa Clarita (City) as "Open Space" (City of Santa Clarita 2016). The project would involve construction and operation of a new groundwater treatment facility for treatment of perchlorate and other groundwater contaminants at the existing Well 205 site.

Under the proposed project, all existing facilities would remain in place. Attachment B shows site photographs of the existing site and facilities. The new treatment facility would consist of an approximately 612-square-foot chemical building, water tanks, pumps, and treatment equipment alongside existing facilities at the site. The new chemical building would consist of concrete masonry unit material and would be constructed to match the architectural style of the existing concrete masonry unit Well 205 building. The proposed project would not increase the production capacity of Well 205.

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The development footprint of the proposed groundwater treatment facility would be approximately 33,000 square feet, or 0.8 acre. The facility would be surrounded by an eight-foot tall retaining wall made of masonry and concrete, which would partially screen the site from public view. Two controlled entry gates would be constructed —one facing east toward the McBean Regional Transit Center Park and Ride (Park and Ride) parking lot and one facing south along Valencia Boulevard along with a new access driveway along Valencia Boulevard. The project site would be paved where vehicles would access the facility. Crushed rock or decomposed granite would also be used to surface the remainder of the facility footprint. Stormwater runoff would be directed towards an existing stormwater drain inlet on the eastern side of the project site. The project also includes a shade structure over the proposed vessels. In addition, the proposed project would plant approximately 50 native trees along the western portion of the project site. The vegetative plantings would consist of mature trees, ranging between 18 and 24 feet in height.

Methodology

Regulatory Overview

Regulated or sensitive resources studied and analyzed herein include special-status plant and wildlife species, nesting birds and raptors, sensitive plant communities, jurisdictional waters and wetlands, wildlife movement, and locally protected resources, such as protected trees.

Environmental Statutes

For the purpose of this report, potential impacts to biological resources were analyzed based on the following statutes:

- California Environmental Quality Act (CEQA)
- Federal Endangered Species Act (ESA)
- California Endangered Species Act (CESA)
- Federal Clean Water Act (CWA)
- California Fish and Game Code (CFGC)
- Migratory Bird Treaty Act (MBTA)
- The Bald and Golden Eagle Protection Act
- Porter-Cologne Water Quality Control Act
- City of Santa Clarita General Plan (2011)
- City of Santa Clarita Municipal Code

Guidelines for Determining CEQA Significance

The following threshold criteria, as defined by the CEQA Guidelines Appendix G Initial Study Checklist, were used to evaluate potential environmental effects. Based on these criteria, the proposed project would have a significant effect on biological resources if it would:

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.
- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.
- c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal areas, etc.) through direct removal, filling, hydrological interruption, or other means.
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.
- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- f) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional or state habitat conservation plan.

Literature Review

A literature review was conducted to establish the environmental and regulatory setting of the proposed project. Specific literature reviewed for the analysis is provided in the *References* section. The reviewed literature included the United States Department of Agriculture (USDA) Soil Survey (USDA 2020) and literature detailing the habitat requirements of subject species. Aerial photographs, topographic maps, and soil survey maps were also examined.

Queries of the United States Fish and Wildlife Service (USFWS) Environmental Conservation Online System (ECOS): Information, Planning and Conservation System (IPaC) (USFWS 2020a), USFWS Critical Habitat Portal (USFWS 2020b), USFWS National Wetland Inventory (NWI) (USFWS 2020c), California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) (CDFW 2020a), CDFW Biogeographic Information and Observation System (BIOS) (CDFW 2020b), and California Native Plant Society (CNPS) *Online Inventory of Rare, Threatened and Endangered Plants of California* (CNPS 2020) were conducted. The queries were conducted to obtain comprehensive information regarding state and federally listed species, sensitive communities and federally designated Critical Habitat known to or considered to have potential to occur near the project site.

Field Reconnaissance Survey

The field reconnaissance survey was limited to providing an overview of site biological constraints and the potential presence of sensitive biological resources, including special-status plant and wildlife species, sensitive plant communities, jurisdictional waters and wetlands, protected trees, wildlife movement, and habitat for nesting birds. The study area for the field survey and this analysis consists of the project site and a 100-foot surrounding buffer.

Rincon Senior Biologist Robin Murray conducted the field reconnaissance survey on September 14, 2020 from 0800 to 1000. The survey was performed by walking the project site to characterize the existing biological resources present (e.g., vegetation communities, potential presence of special-status species and/or habitats, and presence of potentially jurisdictional waters). Inspection of the study area and vicinity was also conducted using binoculars (10 x 40). Weather conditions during the survey included an



average temperature of 75 degrees Fahrenheit with winds between 0 and 3 miles per hour and clear skies. Representative photographs of the site were taken and are included in Attachment C.

Vegetation mapping and classification followed *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018) and was based on the classification system provided in *A Manual of California Vegetation, Second Edition* (Sawyer et al. 2009). Alternatively, vegetation communities or land cover types that are not described in *A Manual of California Vegetation* were classified using conventional naming practices (i.e., developed) or were defined by the dominant species.

Existing Conditions

Physical Characteristics

The approximately 0.8-acre project site is located in an existing undeveloped area adjacent to Valencia Boulevard and situated between a parking lot and a residential community. The approximately 3.37-acre study area contains native and non-native vegetation and a recreational trail.

Elevations within the study area range from approximately 1,145 to 1,175 feet above mean sea level. Soils underlying the study area consist of Yolo loam, 2 to 9 percent slopes; Ojai-Zamora loams, 15 to 30 percent slopes; and Sorrento loam, 0 to 2 percent slopes. The first mapped soil unit is not classified as hydric, while the latter two are (USDA 2020).

A review of recent and historical aerial imagery indicates that from 1947 through the 1959, the study area and vicinity contained open space and agricultural fields that were subject to disturbance. Valencia Boulevard was constructed by 1969, and by 1994, additional roadways and residential communities were established. The footprint of urban development continued to expand, and by 2002, a residential community was constructed within the western portion of the study area. Finally, a parking lot was constructed by 2014 within the eastern portion of the study area. The building and cleared land associated with the existing Well 205 site are visible by 2002 (Google Earth 2020; HistoricAerials.com 2020).

Vegetation Communities and Land Cover Types

A review of historical aerial imagery (Google Earth 2020; HistoricAerials.com 2020) revealed the study area has been subject to vegetation clearance and/or grading activities as recently as 2005. Natural vegetation communities have established within the portions of the study area not subject to additional disturbance. Vegetation communities and land cover types documented within the study area during the reconnaissance survey include California buckwheat scrub, purple sage scrub, upland mustards, ornamental landscaping, bare ground, and developed (Attachment A, Figure 3). Brief descriptions of the vegetation communities present in the study area are provided below. A list of plant species observed during the September 14, 2020 field survey is included in Attachment C.



Table 1 Summary of Vegetation Communities and Land Cover Types within the Study Area

Туре	Approximate Acreage	Approximate Percent Area
California buckwheat scrub	0.60	17.8%
Purple sage scrub	0.12	3.6%
Upland mustards	0.85	25.2%
Ornamental landscaping	0.91	27.0%
Bare ground	0.12	3.6%
Developed	0.77	22.8%
Total	3.37	100%

California Buckwheat Scrub (*Eriogonum fasciculatum* Shrubland Alliance)

The California buckwheat scrub alliance is typically found along upland sloped, intermittently flooded arroyos, channels and washes, and rarely within flooded low-gradient deposits, between 0 to 3,940 feet (0 to 1,200 meters) in elevation. Soils are typically coarse, well drained, and moderately acidic to slightly saline. California buckwheat (*Eriogonum fasciculatum*) contributes to at least 50 percent relative cover in the shrub layer. This vegetation community is ranked G5S5 and is not considered sensitive (CDFW 2020d).

This vegetation community is found within the northwestern portion of the study area, along a gently sloping hill. The shrub layer ranges from intermittent to relatively dense and is composed almost entirely of California buckwheat. Tamarisk (*Tamarix ramosissima*) and coyote brush (*Baccharis pilularis*) shrubs are occasionally present as scattered individuals. The herbaceous layer ranges from absent to sparse and consists of non-native species such as tocalote (*Centaurea melitensis*) and tumble mustard (*Hirschfeldia incana*). The study area contains 0.60 acre (17.8 percent) of this alliance.

Purple Sage Scrub (Salvia leucophylla Shrubland Alliance)

This shrubland alliance is typically found along slopes of variable aspect between 165 to 3,035 feet (50 to 925 meters) in elevation. Purple sage (*Salvia leucophylla*) is present at over 30 percent relative cover and is often codominant with California sagebrush (*Artemisia californica*) in the shrub layer. This vegetation community is ranked G4S4 (CDFW 2020d), which is not considered sensitive.

This vegetation community is found within the northern portion of the study area, outside the project footprint. Purple sage is dominant in the open shrub layer, with mock heather (*Ericameria ericoides*) and coyote brush occasionally present as scattered individuals. The herbaceous layer is dense and consists primarily of non-native species including tocalote, tumble mustard, and black mustard (*Brassica nigra*). The study area contains 0.12 acre (3.6 percent) of this alliance.

Upland Mustards (Brassica nigra Semi-Natural Herbaceous Alliance)

This herbaceous semi-natural alliance is typically found in fallow fields, grasslands, roadsides, levee slopes, disturbed coastal scrub, riparian areas, cleared roadsides, and waste places between 0 to 4,920 feet (0 to 1,500 meters) in elevation. Black mustard, tumble mustard, wild radish (*Raphanus sativus*), or other mustards occur with non-native plants at over 80 percent cover in the herbaceous layer. This vegetation community is not provided a rarity ranking due to the dominance of non-native species.



This vegetation community is found throughout the central portion of the study area. In the northern extent of this community along the gentle slope, black mustard is overwhelmingly dominant in the dense herbaceous layer. Other commonly-encountered herbaceous species include tumble mustard, tocalote, and red brome (*Bromus madritensis*). In the flat portion of the study area surrounding the existing Well 205 site, the herbaceous layer is more sparse and also contains telegraph weed (*Heterotheca grandiflora*), vinegar weed (*Trichostema lanceolatum*), Canada horseweed (*Erigeron canadensis*), and prickly lettuce (*Lactuca serriola*). The study area contains 0.85 acre (25 percent) of this alliance.

Other Land Cover

Other land cover types include ornamental landscaping, bare ground, and developed areas. These land cover types are not officially identified in *A Manual of California Vegetation* (Sawyer, et al. 2009) as defined vegetation communities. Ornamental landscaping is situated within the southwest portion of the study area within a residential community, along the Valencia Boulevard parkway, and surrounding the Park and Ride. Ornamental landscaping consists of California sycamore (*Platanus racemosa*), pine (*Pinus* sp.) and red gum (*Eucalyptus camaldulensis*) trees with a variety of non-native shrubs including star jasmine (*Jasminum multiflorum*) and coast rosemary (*Westringia fruticosa*). Bare ground characterizes pedestrian trails and the area surrounding the existing Well 205 building; this land cover type is sparsely vegetated. Developed areas consist of paved roads and sidewalks, the Well 205 building, and associated infrastructure.

General Wildlife

The undeveloped portion of the study area is contiguous with a larger open space that may be utilized by a variety of native and non-native wildlife. The developed portion of the study area, which is adjacent to residential development, parking lots, and transportation infrastructure, supports common wildlife adapted to urban and suburban areas (e.g., a variety of common avian species). Wildlife species observed directly or detected from calls, tracks, scat, nests, or other signs were documented. The detection of wildlife species was limited by seasonal and temporal factors. Wildlife species observed during the survey are included in Attachment C.

Sensitive Biological Resources

Based on review of aerial photographs and the September 14, 2020, field reconnaissance survey, Rincon evaluated the potential presence of sensitive biological resources on and adjacent to the project site.

Special-Status Species

Special-status species are those plants and animals listed, proposed for listing, or candidates for listing as Threatened or Endangered by the USFWS under the FESA; those considered "Species of Concern" by the USFWS; those listed or candidates for listing as Rare, Threatened, or Endangered by the CDFW under the CESA; animals designated as "Fully Protected" by the CFGC; animals listed as "Species of Special Concern" (SSC) by the CDFW; and CDFW Special Plants, specifically those with California Rare Plant Ranks (CRPR) of 1B, 2, 3, and 4 in the CNPS's Online Inventory of Rare and Endangered Vascular Plants of California (CNPS 2020).



Local, state, and federal agencies regulate special-status species and may require an assessment of their presence or potential presence to be conducted on site prior to the approval of proposed development on a property. A list of special-status plant and wildlife species with potential to occur on site was developed based on a review of a five-mile search of the CNDDB (CDFW 2020b) and the CNPS *Online Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2020) (Attachment D). These search areas were determined based on the surrounding urban and residential land uses and significant change in habitat types outside of this area (e.g., mountain and desert habitats that are not relevant to the project site). Assessments for the potential occurrence of special-status species are based upon known ranges, habitat preferences for the species, species occurrence records from the CNDDB, species occurrence records from other sites in the vicinity of the survey area, and previous reports for the project site. The potential for each special-status species to occur in the survey area was evaluated according to the following criteria:

- **Not Expected.** Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- Low Potential. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
- Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- High Potential. All of the habitat components meeting the species requirements are present and/or
 most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of
 being found on the site.
- **Present.** Species is observed on the site or has been recorded (e.g., CNDDB, other reports) on the site recently (within the last five years).

Queries of the CNDDB and the CNPS (within five miles of the study area) provided records for 20 special-status plant species and 23 special-status wildlife species (Attachment D).

Special-Status Plant Species

Rincon evaluated 20 special-status plant species tracked by the CNDDB and CNPS within a five-mile radius of the study area for their potential to occur (Attachment D). The assessment is based on upon the presence of suitable habitat as identified during the reconnaissance survey and existing knowledge of species occurrences and distributions in the region. Of the 20 species evaluated, none have a moderate or high potential to occur. Seven species have a low potential to occur, and 13 are not expected to occur based on factors ranging from the existing developed nature of the project site, history of disturbance of the study area, lack of suitable soils, inappropriate hydrologic conditions, absence of appropriate vegetation communities, and lack of observation during the reconnaissance survey conducted for perennially identifiable species. In addition, the CNDDB occurrences for several species are historical, dating to the mid-1900s or earlier. No special-status plant species were detected within the study area during the reconnaissance survey.



Special-Status Wildlife Species

Rincon evaluated 23 special-status wildlife species tracked by the CNDDB and CNPS within a five-mile radius of the study area for their potential to occur (Attachment D). The assessment is based on the presence of suitable habitat as identified during the survey and existing knowledge of species occurrences and distributions in the region. Of the 23 species evaluated, five have a moderate potential to occur within the study area: California legless lizard (*Anniella* spp.), SSC; California glossy snake (*Arizona elegans occidentalis*), SSC; coast horned lizard (*Phrynosoma blainvillii*), SSC; coastal whiptail (*Aspidoscelis tigris stejnegeri*), SSC; and white-tailed kite (*Elanus leucurus*), a CDFW fully protected species. The California buckwheat scrub and purple sage scrub vegetation communities provide moderately suitable habitat for California legless lizard, California glossy snake, coast horned lizard, and coastal whiptail. The upland mustards vegetation community provides foraging habitat for white-tailed kite. This species primarily feeds on small mammals and forages by hovering over open fields and marshes; suitable nesting habitat is not present within the study area.

Seven species have a low potential to occur, including coastal California gnatcatcher (*Polioptila californica californica*), federally Threatened, SSC. Four records of coastal California gnatcatcher are reported within five miles of the study area; all are situated approximately 4.5 miles away from the project site. The buckwheat scrub and purple sage scrub communities provide moderately suitable nesting habitat for the species. However, the study area is situated at the northern extent of the species' range where occurrences are sparsely scattered, and the suitable habitat within the study area is isolated from large blocks of open space; coastal California gnatcatchers do not typically travel through urbanized areas. No special-status wildlife species were detected within the study area during the reconnaissance survey.

Nesting Birds

While common birds are not designated as special-status species, destruction of their eggs, nests, and nestlings is prohibited by federal and state law. Section 3503.5 of the CFGC specifically protects birds of prey and their nests and eggs against take, possession, or destruction. Section 3503 of the CFGC also incorporates restrictions imposed by the federal MBTA with respect to migratory birds (which consist of most native bird species).

Within the study area, California buckwheat scrub, purple sage scrub, and ornamental landscaping could provide suitable nesting habitat for several common avian species, including raptors.

Sensitive Plant Communities

Plant communities are considered sensitive if they have limited distributions, have high wildlife value, include sensitive species, or are particularly susceptible to disturbance. The CDFW ranks sensitive communities as "threatened" or "very threatened" and keeps records of their occurrences in CNDDB. CNDDB vegetation alliances are ranked 1 through 5 based on NatureServe's (2020) methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive, though there are some exceptions.

The CNDDB has records for nine sensitive terrestrial natural communities or habitat types that are reported from historical information (primarily 1988 or earlier) within a five-mile radius of the project site: California Walnut Woodland, Mainland Cherry Forest, Riversidian Alluvial Fan Sage Scrub, Southern California Threespine Stickleback Stream, Southern Coast Live Oak Riparian Forest, Southern



Cottonwood Willow Riparian Forest, Southern Riparian Scrub, Southern Willow Scrub, and Valley Oak Woodland. No sensitive natural communities were observed within the study area during the September 14, 2020 field survey.

Jurisdictional Waters and Wetlands

Jurisdictional waters or wetlands were not observed within the study area. A stormwater drain inlet on the eastern portion of the project site drains localized surface stormwater flows. This feature does not have a defined channel with bed or bank. The National Wetlands Inventory (USFWS 2020) does not identify any drainages or wetland features within the study area.

Wildlife Movement

Wildlife corridors, or habitat linkages, are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as between foraging and denning areas, or they may be regional in nature, allowing movement across the landscape. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Others may be important as dispersal corridors for young animals. A group of habitat linkages in an area can form a wildlife corridor network.

The habitats in the linkage do not necessarily need to be the same as the habitats that are being linked. Rather, the linkage merely needs to contain sufficient cover and forage to allow temporary inhabitation by ground-dwelling species. Typically, habitat linkages are contiguous strips of natural areas, though dense plantings of landscape vegetation can be used by certain disturbance-tolerant species. Depending upon the species using a corridor, specific physical resources (e.g., rock outcroppings, vernal pools, or oak trees) may need to be in the habitat link at certain intervals to allow slower-moving species to traverse the link. For highly mobile or aerial species, habitat linkages may be discontinuous patches of suitable resources spaced sufficiently close together to permit travel along a route in a short period of time.

The study area is not situated within any documented wildlife corridors or habitat linkages (Spencer 2010). The study area is surrounded on three sides by residential and commercial development, including Valencia Boulevard, a large, frequently traveled road. The open space northwest of the study area provides habitat for some wildlife species but is geographically isolated from natural landscape features capable of supporting wildlife movement. Accordingly, it is unlikely that the adjacent open space contributes significantly to wildlife movement given its isolation and adjacency to existing residential and commercial development and transportation corridors.

Resources Protected by Local Policies and Ordinances

Open Space Areas

Most of the study area is zoned as Open Space, as defined by the Santa Clarita Municipal Code. Title 14 Section 10 mandates that any defacement, disfigurement, injury, or removal of plant material or harming, molesting, killing, or harassment of any wildlife within an open space is strictly prohibited without a written permit granted by the Santa Clarita City Manager.



City of Santa Clarita General Plan

Natural resources within Santa Clarita limits are regulated according to the City's General Plan (City of Santa Clarita 2011), which includes policies regarding conservation of biological resources and ecosystems, as well as protection of sensitive habitat (including wildlife corridors) and endangered species. The following objectives and policies related to biological resources are relevant for the proposed project (based on its location and/or proposed activities):

Objective CO 3.1: In review of development plans and projects, encourage conservation of existing natural areas and restoration of damaged natural vegetation to provide for habitat and biodiversity.

- Policy CO 3.1.1: On the Land Use Map and through the development review process, concentrate development into previously developed or urban areas to promote infill development and prevent sprawl and habitat loss, to the extent feasible.
- Policy CO 3.1.2: Avoid designating or approving new development that will adversely impact wetlands, floodplains, threatened or endangered species and habitat, and water bodies supporting fish or recreational uses, and establish an adequate buffer area as deemed appropriate through site specific review.
- Policy CO 3.1.3: On previously undeveloped sites ("greenfields"), identify biological resources
 and incorporate habitat preservation measures into the site plan, where appropriate. (This
 policy will generally not apply to urban infill sites, except as otherwise determined by the
 reviewing agency).
- *Policy CO 3.1.4*: For new development on sites with degraded habitat, include habitat restoration measures as part of the project development plan, where appropriate.
- *Policy CO 3.1.5*: Promote the use of site-appropriate native or adapted plant materials, and prohibit use of invasive or noxious plant species in landscape designs.
- Policy CO 3.1.6: On development sites, preserve and enhance natural site elements including
 existing water bodies, soil conditions, ecosystems, trees, vegetation and habitat, to the extent
 feasible.
- Policy CO 3.1.7: Limit the use of turf-grass on development sites and promote the use of native or adapted plantings to promote biodiversity and natural habitat.
- Policy CO 3.1.8: On development sites, require tree planting to provide habitat and shade to reduce the heat island effect caused by pavement and buildings.
- Policy CO 3.1.9: During construction, ensure preservation of habitat and trees designated to be
 protected through use of fencing and other means as appropriate, so as to prevent damage by
 grading, soil compaction, pollution, erosion or other adverse construction impacts.
- Policy CO 3.1.10: To the extent feasible, encourage the use of open space to promote biodiversity.
- Policy CO 3.1.11: Promote use of pervious materials or porous concrete on sidewalks to allow for planted area infiltration, allow oxygen to reach tree roots (preventing sidewalk lift-up from roots seeking oxygen), and mitigate tree-sidewalk conflicts, in order to maintain a healthy mature urban forest.



Objective CO 3.2: Identify and protect areas which have exceptional biological resource value due to a specific type of vegetation, habitat, ecosystem, or location.

 Policy CO 3.2.3: Ensure protection of any endangered or threatened species or habitat, in conformance with State and federal laws.

Objective CO 3.3: Protect significant wildlife corridors from encroachment by development that would hinder or obstruct wildlife movement.

Objective CO 3.5: Maintain, enhance, and manage the urban forest throughout developed portions of the Santa Clarita Valley to provide habitat, reduce energy consumption, and create a more livable environment.

- Policy CO 3.5.1: Continue to plant and maintain trees on public lands and within the public rightof-way to provide shade and walkable streets, incorporating measures to ensure that roots have access to oxygen at tree maturity, such as use of porous concrete.
- Policy CO 3.5.2: Where appropriate, promote planting of trees that are native or climactically appropriate to the surrounding environment, emphasizing oaks, sycamores, maple, walnut, and other native species in order to enhance habitat, and discouraging the use of introduced species such as eucalyptus, pepper trees, and palms except as ornamental landscape features.

Objective CO 3.6: Minimize impacts of human activity and the built environment on natural plant and wildlife communities.

- Policy CO 3.6.1: Minimize light trespass, sky-glow, glare, and other adverse impacts on the
 nocturnal ecosystem by limiting exterior lighting to the level needed for safety and comfort,
 reduce unnecessary lighting for landscaping and architectural purposes, and encourage
 reduction of lighting levels during nonbusiness nighttime hours.
- Policy CO 3.6.2: Reduce impervious surfaces and provide more natural vegetation to enhance microclimates and provide habitat.

Significant Ecological Areas

The City's General Plan and Municipal Code (Section 17.38.080) includes requirements pertaining to development within the Significant Ecological Areas (SEAs) Overlay Zone. SEAs are "defined as ecologically important land and water systems that are valuable as plant or animal communities, often important to the preservation of threatened and endangered species, and conversation of biological diversity in the County" (City of Santa Clarita 2011). The City of Santa Clarita's Municipal Code Section 17.38.080 requires a conformance review for development within the SEA Overlay Zone. No SEAs are present in the study area.

Protected Trees

Native trees are protected under the City's Parkway Trees Ordinance (Santa Clarita Municipal Code Chapter 13.76). Pursuant to the Ordinance, a tree permit must be obtained prior to damaging or removing any protected trees that are classified as any of the following:



- "Exceptional specimen tree" a tree considered an outstanding specimen of its species by reason of age, rarity, location, size, aesthetic quality, endemic status, or unique character, and is so designated by resolution of the City Council
- "Habitat tree" a tree (or any group of trees) which has special importance as a wildlife habitat, and
 is so designated by resolution of the City Council
- "Historic tree" a living tree in association with some event or person of historical significance to the community or because of special due to size, condition or aesthetic qualities, and is so designated by resolution of the City Council
- "Indigenous tree" a tree which occurs naturally in the City, and is so designated by resolution of the City Council

Additionally, the Ordinance defines a tree as a woody plant that has the potential of attaining a minimum height of fifteen feet and has a canopy of foliage borne normally by a single trunk.

Numerous ornamental landscaping trees are located within the study area. Only one tree, an ornamental pine (*Pinus* sp.). would be impacted by the project; however, this tree is not considered protected by the City's Parkway Trees Ordinance.

Habitat Conservation Plans

The project site is not subject to an adopted h Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Impact Analysis and Recommended Actions

This section discusses the possible adverse impacts to biological resources that may occur from implementation of the project and recommends appropriate actions to avoid or minimize potential impacts.

Special-Status Species

As discussed above, 20 special-status plant species and 23 special-status wildlife species are known to occur or have potential to occur within five miles of the study area.

Special-Status Plant Species

The study area does not provide suitable habitat for most special-status plant species given its disturbance history, lack of suitable soils, inappropriate hydrologic conditions, or absence of appropriate vegetation communities. No special-status plant species have a moderate or high potential to occur within the study area. As a result, project impacts to special-status plant species are not expected, and no further actions are recommended.

Special-Status Wildlife Species

The California buckwheat scrub and purple sage scrub vegetation communities provide moderately suitable habitat for California legless lizard, California glossy snake, coast horned lizard, and coastal whiptail, all of which are SSC species. The upland mustards vegetation community provides foraging



habitat for the white-tailed kite, but no nesting habitat is present within the study area. As a result, project activities could potentially directly or indirectly impact individuals of these species. However, it should be noted that these SSC species with potential to occur are not geographically restricted to the vicinity of the study area, and injury/death to limited individuals would not contribute to a loss of population viability of these SSC species. Adherence to Measure BIO-1 would reduce potential direct and indirect effects to these species to a less than significant level.

The project would result in the removal of a relatively small area of suitable foraging habitat for white-tailed kite; however, the open space northwest of the study area serves as a long-term source of suitable foraging habitat. Therefore, potential impacts to white-tailed kite foraging habitat would be less than significant.

The California buckwheat scrub and purple sage scrub vegetation communities provide moderately suitable nesting habitat for coastal California gnatcatcher, though as previously detailed, the potential for the species to inhabit these vegetation communities within the study area is low. Nevertheless, if the species is present within the vicinity of the project during initial vegetation clearance, the proposed project has the potential to directly (by destroying a nest) or indirectly (removal of habitat, construction noise, dust, and other human disturbances that may cause a nest to fail) impact the species. Between October 2020 and March 2021, Rincon conducted nine non-breeding season (July 1 through March 14) surveys conducted in accordance with USFWS protocol to determine presence/absence of coastal California gnatcatchers within the project vicinity (Rincon 2021). No coastal California gnatcatchers were detected. Accordingly, California buckwheat scrub and purple sage scrub within the project footprint do not support a coastal California gnatcatcher territory, and their removal would not impact the species.

Nesting Birds

Migratory or other common nesting birds, while not designated as special-status species, are protected by the CFGC and MBTA and may nest on site in California buckwheat scrub, purple sage scrub, and ornamental landscaping. Therefore, construction of the project has the potential to directly (by destroying a nest) or indirectly (construction noise, dust, and other human disturbances that may cause a nest to fail) impact nesting birds protected under the CFGC and MBTA. Implementation of Measure BIO-2 would include a pre-construction nesting bird survey if vegetation removal or construction occurs during the nesting bird season (typically February 1 to August 31). If active nests are identified, buffers would be implemented to minimize impacts to nesting birds. Implementation of Measure BIO-2 would maintain compliance with CFGC 3503 and the MBTA.

Avoidance, Minimization, and Mitigation Measures

BIO-1 General Best Management Practices

The following general requirements should be followed by construction personnel:

- The contractor should clearly delineate the construction limits and prohibit any construction-related traffic outside those boundaries
- Project-related vehicles should observe a 10-mile-per-hour speed limit within the unpaved limits of construction
- All open trenches or excavations should be fenced and/or sloped to prevent entrapment of wildlife species



- All food-related trash items such as wrappers, cans, bottles, and food scraps generated during
 project construction should be disposed of in closed containers only and removed daily from the
 project site
- No deliberate feeding of wildlife should be allowed
- No pets should be allowed on the project site
- No firearms should be allowed on the project site
- If vehicle or equipment maintenance is necessary, it should be performed in the designated staging areas
- If construction must occur at night (between dusk and dawn), all lighting should be shielded and directed downward to minimize the potential for glare or spillover onto adjacent properties and to reduce impacts on local wildlife
- During construction, heavy equipment should be operated in accordance with standard Best
 Management Practices. All equipment used on-site should be properly maintained to avoid leaks of
 oil, fuel, or residues. Provisions should be in place to remediate any accidental spills immediately.

BIO-2 Nesting Birds

Project-related activities should occur outside of the bird breeding season (generally February 1 to August 31) to the extent practicable. If construction must occur within the bird breeding season, then no more than three days prior to initiation of ground-disturbing activities (including, but not limited to, site preparation, grading, excavation, and trenching) within the project site, a nesting bird pre-construction survey should be conducted by a qualified biologist within the disturbance footprint plus a 100-foot buffer (300-for for raptors), where feasible. If the proposed project is phased or construction activities stop for more than one week, a subsequent pre-construction nesting bird survey should be required prior to each phase of construction.

Pre-construction nesting bird surveys should be conducted during the time of day when birds are active and shall factor in sufficient time to perform this survey adequately and completely. A report of the nesting bird survey results, if applicable, should be submitted SCV Water for review and approval prior to ground and/or vegetation disturbance activities.

If nests are found, their locations should be flagged. An appropriate avoidance buffer ranging in size from 25 to 50 feet for passerines, and up to 300 feet for raptors depending upon the species and the proposed work activity, should be determined and demarcated by a qualified biologist with bright orange construction fencing or other suitable flagging. Active nests should be monitored at a minimum of once per week until it has been determined that the nest is no longer being used by either the young or adults. No ground disturbance or vegetation removal should occur within this buffer until the qualified biologist confirms that breeding/nesting has ended and all the young have fledged. If project activities must occur within the buffer, they should be conducted at the discretion of the qualified biologist. If no nesting birds are observed during pre-construction surveys, no further actions would be necessary.

Sensitive Plant Communities

No sensitive vegetation communities are present within the study area. Therefore, no impacts to sensitive plant communities would occur, and no further actions are recommended.



Jurisdictional Waters and Wetlands

No jurisdictional waters or wetlands are present within the study area. Therefore, no impacts to jurisdictional waters or wetlands would occur. In addition, project construction would be completed in compliance with an approved erosion and sediment control plan and would utilize construction best management practices to avoid and minimize potential indirect impacts (e.g., oil leaks from vehicles, soil erosion, dust) to stormwater runoff entering the storm water system.

Wildlife Movement

The proposed project is not anticipated to have an incremental effect on localized wildlife movement or create habitat fragmentation in the region, and it is not anticipated to have significant impact on regional wildlife movement. Direct impacts to wildlife movement as a result of project implementation would be less than significant. Upon completion of construction, the proposed groundwater treatment facility may include safety lighting, which would be directed and shielded toward project facilities to minimize or avoid light spillage outside the project site. Noise would be generated from an 800-horsepower groundwater pump operated 24 hours per day. However, because the pump would be operated inside an enclosed masonry structure, noise would be attenuated to 34.5 decibels at approximately 100 feet from the structure, which is below the 60-decibel threshold above which substantial impacts to wildlife are generally thought to occur. Therefore, indirect impacts to wildlife movement would also be less than significant. No further actions are recommended.

Resources Protected by Local Policies and Ordinances

Open Space Areas

The proposed project is situated within an area zoned Open Space, and certain impacts to it, including removal of vegetation or harassment of wildlife, are prohibited without a permit granted by the Santa Clarita City Manager pursuant to Santa Clarita Municipal Code Chapter 14.10. SCV Water would obtain this permit prior to project construction to maintain compliance with this local ordinance.

City of Santa Clarita General Plan

The City's General Plan contains objectives and policies for biological resources that are relevant to the proposed project given its location and/or the proposed activities. As identified above, these objectives and policies focus on conservation of existing natural areas; restoration of damaged natural vegetation; protection of wetlands, oak trees and other indigenous woodlands, and endangered or threatened species and habitat; and protection of biological resources in SEAs and significant wildlife corridors.

In compliance with the objectives and policies outlined above, the project would not impact wetlands, oak trees, or other woodlands, because these resources are not present within the project area. In addition, the project would not affect endangered or threatened species and habitat because no federal or state listed species are expected to occur within the project area. Furthermore, the project would not alter SEAs or impede wildlife movement and corridors because the project is not situated within a sensitive ecological area and does not serve as a wildlife movement corridor or linkage. Therefore, the project would not conflict with the Santa Clarita General Plan, and no further actions are recommended.



Significant Ecological Areas

The project is not situated within an SEA. Therefore, no impacts to SEAs would occur, and no further actions are recommended.

Protected Trees

Only one ornamental pine tree would be impacted by the project, and this tree is not protected by the City's Parkway Trees Ordinance. Therefore, the project would not conflict with the City's Parkway Trees Ordinance, and no further actions are recommended.

Habitat Conservation Plans

The project site is not located in an area subject to an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, no impact would occur.

Limitations, Assumptions, and Use Reliance

This Biological Resources Assessment has been performed in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. The biological investigation is limited by the scope of work performed. Biological surveys for the presence or absence of certain taxa were not conducted as part of this assessment and were not performed during a particular blooming period, nesting period, or particular portion of the season when positive identification would be expected if present, and therefore, cannot be considered definitive. The biological surveys are limited also by the environmental conditions present at the time of the surveys. In addition, general biological (or protocol) surveys do not guarantee that the organisms are not present and will not be discovered in the future within the site. In particular, mobile wildlife species could occupy the site on a transient basis or re-establish populations in the future. Our field studies were based on current industry practices, which change over time and may not be applicable in the future. No other guarantees or warranties, expressed or implied, are provided. The findings and opinions conveyed in this report are based on findings derived from site reconnaissance, jurisdictional areas, review of CNDDB RareFind5, and specified historical and literature sources. Standard data sources relied upon during the completion of this report, such as the CNDDB, may vary with regard to accuracy and completeness. In particular, the CNDDB is compiled from research and observations reported to CDFW that may or may not have been the result of comprehensive or site-specific field surveys. Although Rincon believes the data sources are reasonably reliable, Rincon cannot and does not guarantee the authenticity or reliability of the data sources it has used. Additionally, pursuant to our contract, the data sources reviewed included only those that are practically reviewable without the need for extraordinary research and analysis.

Thank you for the opportunity to provide this Biological Resources Assessment. Please contact the undersigned with any questions.

Lindsay Lin

Sincerely,

Rincon Consultants, Inc.

Robin Munay





Robin Murray Senior Biologist Lindsay Griffin Senior Biologist/Project Manager

Steven J. Hongola Principal Biologist

Attachments

Attachment A Figures

Attachment B Site Photographs

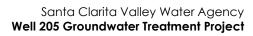
Attachment C Species Detected During Field Reconnaissance Survey

Attachment D Special-Status Species Potential to Occur



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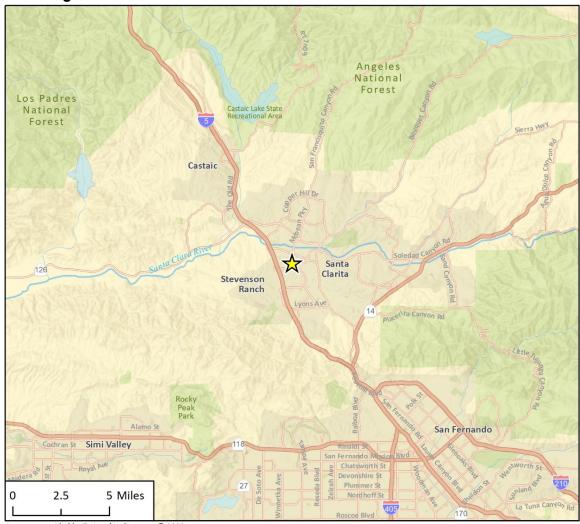
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Attachment A

Figures



Figure 1 Regional Location



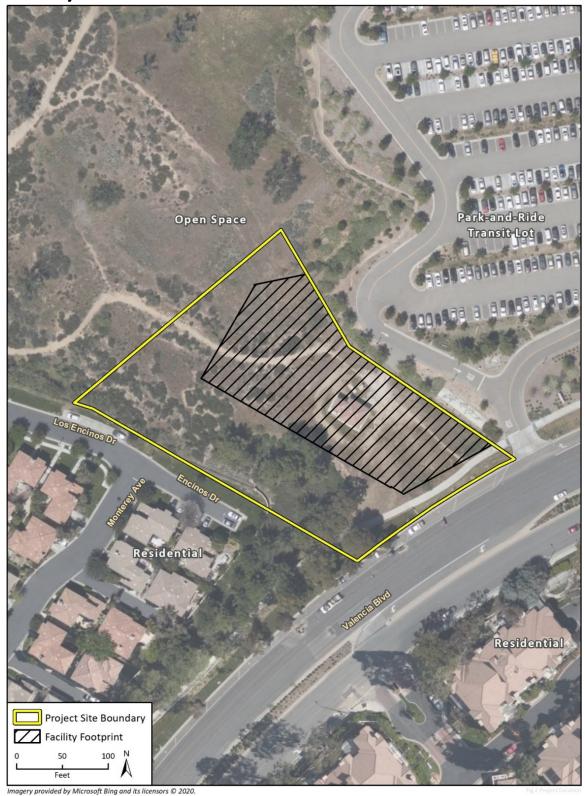
Imagery provided by Esri and its licensors © 2020.







Figure 2 Project Location





Imagery provided by Microsoft Bing and its licensors © 2020.

Figure 3 Vegetation Communities and Land Cover

Project Footprint
Study Area **Vegetation Communities** Bare Ground California Buckwheat Scrub Developed Ornamental Landscaping Purple Sage Scrub **Upland Mustard**

Attachment B

Site Photographs





Photograph 1. View of existing Well 205 facility, facing northwest. September 14, 2020.



Photograph 2. View of existing Well 205 facility, facing west. September 14, 2020.





205 facility in background, view to the east. September 14, 2020. Photograph 3. Trail through California buckwheat scrub in western portion of study area with existing Well



September 14, 2020. Photograph 4. California buckwheat scrub with upland mustards in background, view to the northwest.





Photograph 5. Purple sage scrub in northern portion of study area, view to the north. September 14, 2020.



Photograph 6. View of disturbed upland mustards within southeastern portion of study area, view to the south. September 14, 2020.





to the northeast. September 14, 2020. Photograph 7. Storm drain inlet northeast of proposed facility footprint within ornamental landscaping, view



to the south. September 14, 2020. Photograph 8. Storm drain inlet northeast of proposed facility footprint within ornamental landscaping, view

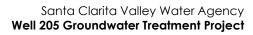


Species Detected During Field Reconnaissance Survey



Plant and Wildlife Species Detected in the Study Area on September 14, 2020

Scientific Name	Common Name	Status	Native or Introduced
Plants			
Acmispon glaber	deerweed	_	Native
Ambrosia acanthicarpa	annual burweed	_	Native
Asclepias fascicularis	narrow leaf milkweed	_	Native
Baccharis pilularis	coyote brush	_	Native
Baccharis salicifolia	mulefat	_	Native
Brassica nigra	black mustard	Cal-IPC Moderate	Introduced
Bromus madritensis	red brome	Cal-IPC High	Introduced
Centaurea melitensis	tocalote	Cal-IPC Moderate	Introduced
Croton setiger	doveweed	_	Native
Cynodon dactylon	Bermuda grass	_	Introduced
Datura wrightii	jimson weed	_	Native
Ericameria ericoides	mock heather	_	Native
Ericameria nauseosa	rabbitbrush	_	Native
Erigeron canadensis	Canada horseweed	_	Native
Eriogonum fasciculatum	California buckwheat	_	Native
Erodium cicutarium	redstem filaree	Cal-IPC Limited	Introduced
Eucalyptus camaldulensis	red gum	Cal-IPC Limited	Introduced
Euphorbia albomarginata	rattlesnake sandmat	_	Native
Festuca myuros	rattail fescue	Cal-IPC Moderate	Introduced
Heterotheca grandiflora	telegraph weed	_	Native
Hirschfeldia incana	short-pod mustard	Cal-IPC Moderate	Introduced
Jasminum multiflorum	star jasmine	_	Introduced
Lactuca serriola	prickly lettuce	_	Introduced
Lagerstroemia sp.	crape myrtle	_	Introduced
Pennisetum setaceum	fountain grass	Cal-IPC Moderate	Introduced
Pinus sp.	pine	_	Introduced
Platanus racemosa	California sycamore	_	Native
Rosmarinus officinalis	rosemary	_	Introduced
Salvia leucophylla	purple sage	_	Native
Stephanomeria virgata	virgate wire lettuce	_	Native
Tamarix ramosissima	tamarisk	Cal-IPC High	Introduced
Trichostema lanceolatum	vinegar weed	_	Native
Westringia fruticosa	coast rosemary	_	Introduced
Wildlife			
Birds			
Calypte anna	Anna's hummingbird	-	Native
Corvus brachyrhynchos	common raven	-	Native
Haemorhous mexicanus	house finch	_	Native
Melospiza melodia	song sparrow	_	Native
Melozone crissalis	California towhee	-	Native
Mimus polyglottos	northern mockingbird	_	Native
Zenaida macroura	mourning dove	_	Native
Reptiles	<u> </u>		
Sceloporus occidentalis	western fence lizard	_	Native
Uta stansburiana	side-blotched lizard	_	Native
C to Stariobariana	Side Sidesiled lizurd		114411





Scientific Name	Common Name	Status	Native or Introduced
Mammals			
Otospermophilus beecheyi	California ground squirrel	_	Native
Sylvilagus audubonii	Audubon's cottontail	_	Native

Source: Rincon Consultants biological resources reconnaissance field survey on September 14, 2020; California Invasive Plant Council (Cal-IPC) 2020, which rates introduced species according to their level of invasiveness.



Special-Status Species Potential to Occur



Special-Status Species Potential to Occur

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Plants				
<i>Berberis nevinii</i> Nevin's barberry	FE/SE G1/S1 1B.1	Chaparral, cismontane woodland, coastal scrub, riparian scrub. On steep, north-facing slopes or in low grade sandy washes. 290 to 1575 meters. perennial evergreen shrub. Blooms (February) March to June.	Not Expected	While coastal scrub habitat is present, species prefers sandy washes, which are not present within study area. Conspicuous perennial shrub not observed during field survey.
Calochortus catalinae Catalina mariposa lily	None/None G3G4/S3S4 4.2	Chaparral, cismontane woodland, coastal scrub, Valley and foothill grassland. 15 to 700 meters. Perennial bulbiferous herb. Blooms (February)March to June.	Low	Marginally suitable habitat is present within California buckwheat scrub. However, the species is not documented within five miles of the study area. The site's history of disturbance and the prevalence of non-native species reduces the likelihood of occurrence.
Calochortus clavatus var. clavatus club-haired mariposa lily	None/None G4T3/S3 4.3	Chaparral, cismontane woodland, coastal scrub, Valley and foothill grassland. usually serpentinite, clay, rocky. 75 to 1300 meters. Perennial bulbiferous herb. Blooms (March) May to June.	Low	Marginally suitable habitat is present within California buckwheat scrub. However, the species is not documented within five miles of the study area. The site's history of disturbance and the prevalence of non-native species reduces the likelihood of occurrence.
Calochortus clavatus var. gracilis slender mariposa lily	None/None G4T2T3/S2S3 1B.2	Chaparral, coastal scrub, valley and foothill grassland. Shaded foothill canyons; often on grassy slopes within other habitats. 210 to 1815 meters. Perennial bulbiferous herb. Blooms March to June (November).	Low	Marginally suitable habitat is present within California buckwheat scrub. The site's history of disturbance and the prevalence of non-native species reduces the likelihood of occurrence.
Calochortus palmeri var. palmeri Palmer's mariposa lily	None/None G3T2/S2 1B.2	Meadows and seeps, chaparral, lower montane coniferous forest. Vernally moist places in yellow-pine forest, chaparral. 485 to 2500 meters. Perennial bulbiferous herb. Blooms April to July.	Not Expected	Meadows, seeps, chaparral, and coniferous forest are not present within the study area. Study area is outside expected elevation range of the species.



Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Calochortus plummerae Plummer's mariposa lily	None/None G4/S4 4.2	Coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, lower montane coniferous forest. Occurs on rocky and sandy sites, usually of granitic or alluvial material. Can be very common after fire. 60 to 2500 meters. Perennial bulbiferous herb. Blooms May to July.	Low	Marginally suitable habitat is present within California buckwheat scrub. The site's history of disturbance and the prevalence of non-native species reduces the likelihood of occurrence.
Calystegia peirsonii Peirson's morning- glory	None/None G4/S4 4.2	Chaparral, coastal scrub, chenopod scrub, cismontane woodland, lower montane coniferous forest, valley and foothill grassland. Often in disturbed areas or along roadsides or in grassy, open areas. 30 to 1500 meters. Perennial rhizomatous herb. Blooms April to June.	Not Expected	Marginally suitable habitat is present within California buckwheat scrub. However, no Calystegia species were observed within the study area. This perennial species would likely have been detected at the time of the survey. Species is not documented within five miles of the study area.
Cercocarpus betuloides var. blancheae island mountain- mahogany	None/None G5T4/S4 4.3	Chaparral, closed-cone coniferous forest. 30 to 600 meters. Perennial evergreen shrub. Blooms February to May.	Not Expected	Chaparral and closed-cone coniferous forest are not present within the study area. Species is not documented within five miles of the study area.
Chorizanthe parryi var. fernandina San Fernando Valley spineflower	PFT/SE G2T1/S1 1B.1	Coastal scrub, valley and foothill grassland. Sandy soils. 15 to 1015 meters. Annual herb. Blooms April to July.	Low	Multiple populations are documented within one mile of the study area. Elements of suitable habitat are present within California buckwheat scrub. However, the site's history of disturbance, lack of suitable soils, and the prevalence of non-native species reduces the likelihood of occurrence.
Deinandra paniculata paniculate tarplant	None/None G4/S4 4.2	Coastal scrub, valley and foothill grassland, vernal pools. Usually in vernally mesic sites. Sometimes in vernal pools or on Mima mounds near them. 25 to 940 meters. Annual herb. Blooms (March) April to November.	Not Expected	While coastal scrub is present within the study area, the species prefers vernally mesic areas, which are not present. Species is not documented within five miles of the study area.
Delphinium parryi ssp. purpureum Mt. Pinos larkspur	None/None G4T4/S4 4.3	Pinyon and juniper woodland, Mojavean desert scrub, chaparral. 1000 to 2600 meters. perennial herb. Blooms May to June.	Not Expected	Pinyon and juniper woodland, Mojavean desert scrub, and chaparral are not present within the study area. Study area is outside expected elevation range of the species.



Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Dodecahema leptoceras slender-horned spineflower	FE/SE G1/S1 1B.1	Chaparral, cismontane woodland, coastal scrub (alluvial fan sage scrub). Flood deposited terraces and washes; associates include Encelia, Dalea, Lepidospartum, etc. Sandy soils. 200 to 765 meters. annual herb. Blooms April to June.	Not Expected	Flood deposited terraces and alluvial fan sage scrub are not present within the study area. Only record within five miles dates from 1893 and has not been observed since.
Harpagonella palmeri Palmer's grapplinghook	None/None G4/S3 4.2	Chaparral, coastal scrub, valley and foothill grassland. Clay soils; open grassy areas within shrubland. 20 to 955 meters. Annual herb. Blooms March to May.	Low	Scrub habitat is present; however, the study area lacks clay soils. Only record within five miles is from an undated collection with inexact location.
Helianthus inexpectatus Newhall sunflower	None/None G1/S1 1B.1	Marshes and swamps, riparian woodland. 305 meters. Perennial rhizomatous herb. Blooms August to October.	Not Expected	Marshes, swamps, and riparian woodland are not present within the study area.
Juglans californica Southern California black walnut	None/None G4/S4 4.2	Chaparral, cismontane woodland, coastal scrub, Riparian woodland. Alluvial. 50 to 900 meters. Perennial deciduous tree. Blooms March to August.	Not Expected	Suitable habitat is present for the species, but this perennial tree would have been detectable and was not observed within the study area.
Opuntia basilaris var. brachyclada short-joint beavertail	None/None G5T3/S3 1B.2	Chaparral, Joshua tree woodland, Mojavean desert scrub, pinyon-juniper woodland. Sandy soil or coarse, granitic loam. 425 to 1800 meters. Perennial stem succulent. Blooms April to June (August).	Not Expected	Chaparral, Joshua tree woodland, Mojavean desert scrub, and pinyon-juniper woodland are not present within study area. Study area is outside expected elevation range of the species.
Orcuttia californica California Orcutt grass	FE/SE G1/S1 1B.1	Vernal pools. 10 to 660 meters. Annual herb. Blooms April to August.	Not Expected	Vernal pools are not present within the study area.
Phacelia mohavensis Mojave phacelia	None/None G4Q/S4 4.3	Cismontane woodland, lower montane coniferous forest, dry meadows, pinyon-juniper woodland. Sandy or gravelly soils, dry streambeds. 1400 to 2500 meters. Annual herb. Blooms April to August.	Not Expected	Cismontane woodland, lower montane coniferous forest, dry meadows, and pinyon-juniper woodland are not present within study area. Study area is outside expected elevation range of the species.



Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Pseudognaphaliu m leucocephalum white rabbit- tobacco	None/None G4/S2 2B.2	Chaparral, cismontane woodland, coastal scrub, Riparian woodland. sandy, gravelly. 0 to 2100 meters. Perennial herb. Blooms (July) August to November (December).	Low	The study area contains marginally suitable habitat within California buckwheat scrub. However, the species generally prefers sandy alluvial areas. The survey was conducted during the blooming period for the species, and it was not detected.
Senecio aphanactis chaparral ragwort	None/None G3/S2 2B.2	Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. 20 to 855 meters. Annual herb. Blooms January to April (May).	Not Expected	Although the study area contains coastal scrub, no alkaline flats are present. The one CNDDB record of this species within five miles of the study area dates from 1901.
Invertebrates				
Bombus crotchii Crotch bumble bee	None/SCE G3G4/S1S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.	Low	The study area contains food plants and marginally suitable nesting habitat within California buckwheat scrub. Only CNDDB record within five miles of the study area dates from 1970. The site's history of disturbance reduces the likelihood of occurrence.
Branchinecta lynchi vernal pool fairy shrimp	FT/None G3/S3	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	Not Expected	Vernal pools are not present within the study area.
Fish				
Catostomus santaanae Santa Ana sucker	FT/None G1/S1	Endemic to Los Angeles Basin south coastal streams. Habitat generalists, but prefer sand-rubble-boulder bottoms, cool, clear water, and algae.	Not Expected	The study area does not contain aquatic habitat.
Gasterosteus aculeatus williamsoni unarmored threespine stickleback	FE/SE G5T1/S1 FP	Weedy pools, backwaters, and among emergent vegetation at the stream edge in small Southern California streams. Cool (less than 24 °C), clear water with abundant vegetation.	Not Expected	The study area does not contain aquatic habitat.



Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Gila orcuttii arroyo chub	None/None G2/S2 SSC	Native to streams from Malibu Creek to San Luis Rey River basin. Introduced into streams in Santa Clara, Ventura, Santa Ynez, Mojave and San Diego river basins. Slow water stream sections with mud or sand bottoms. Feeds heavily on aquatic vegetation and associated invertebrates.	Not Expected	The study area does not contain aquatic habitat.
Amphibians				
Anaxyrus californicus arroyo toad	FE/None G2G3/S2S3 SSC	Semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, etc. Rivers with sandy banks, willows, cottonwoods, and sycamores; loose, gravelly areas of streams in drier parts of range.	Not Expected	The study area does not contain aquatic habitat.
Spea hammondii western spadefoot	None/None G3/S3 SSC	Occurs primarily in grassland habitats but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Not Expected	The study area does not contain aquatic habitat.
Reptiles				
Anniella spp. California legless lizard	None/None G3G4/S3S4SS C	Contra Costa County south to San Diego, within a variety of open habitats. This element represents California records of Anniella not yet assigned to new species within the Anniella pulchra complex. Variety of habitats; generally, in moist, loose soil. They prefer soils with a high moisture content.	Moderate	Moderately suitable habitat is present within California buckwheat scrub.



Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Arizona elegans occidentalis California glossy snake	None/None G5T2/S2 SSC	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	Moderate	Moderately suitable habitat within the study area, though CNDDB occurrences date from 1946 and prior.
Aspidoscelis tigris stejnegeri coastal whiptail	None/None G5T5/S3 SSC	Found in deserts and semi- arid areas with sparse vegetation and open areas. Also found in woodland and riparian areas. Ground may be firm soil, sandy, or rocky.	Moderate	Moderately suitable habitat for this species is present within California buckwheat scrub.
Emys marmorata western pond turtle	None/None G3G4/S3 SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6,000 feet elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 kilometer from water for egg-laying.	Not Expected	The study area does not contain aquatic habitat.
Phrynosoma blainvillii coast horned lizard	None/None G3G4/S3S4 SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Moderate	Moderately suitable habitat present within California buckwheat scrub.
Birds				
Accipiter cooperii Cooper's hawk	None/None G5/S4 WL	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river floodplains; also, live oaks.	Not Expected	The study area does not contain suitable habitat (open areas adjacent to riparian trees) to support foraging for this species. The study area lacks riparian trees to support nesting.



Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Artemisiospiza belli belli Bell's sage sparrow	None/None G5T2T3/S3 WL	Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in south of range. Nest located on the ground beneath a shrub or in a shrub 6 to 18 inches above ground. Territories about 50 yards apart.	Not Expected	The study area does not contain chamise, and purple sage scrub within study area is small in size and fragmented from dense chaparral. Nearest record is four miles north of study area.
Athene cunicularia burrowing owl	None/None G4/S3SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by lowgrowing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Low	While scrub habitat is present in the study area and California ground squirrel is present, suitable burrows were not observed during the reconnaissance survey.
Buteo swainsoni Swainson's hawk	None/ST G5/S3	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	Low	The study area contains only marginal foraging and nesting habitat. Only record within five miles dates from 1898.
Elanus leucurus white-tailed kite	None/None G5/S3S4 FP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Moderate	The study area provides moderately suitable foraging habitat but does not provide suitable nesting habitat.
Eremophila alpestris actia California horned lark	None/None G5T4Q/S4 WL	Coastal regions, chiefly from Sonoma County to San Diego County. Also, main part of San Joaquin Valley and east to foothills. Shortgrass prairie, bald hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	Low	The study area does not contain prairie, bald hills, mountain meadows, open coastal plains or fallow grain fields.



Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Polioptila californica californica coastal California gnatcatcher	FT/None G4G5T2Q/S2 SSC	Obligate, permanent resident of coastal sage scrub below 2500 feet in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	Low	Marginally suitable habitat is present within California buckwheat scrub. Four records are reported within five miles of the study area, all approximately four miles from the site.
Vireo bellii pusillus least Bell's vireo	FE/SE G5T2/S2	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 feet. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	Not Expected	The study area does not contain suitable riparian habitat.
Mammals				
Euderma maculatum spotted bat	None/None G4/S3 SSC	Occupies a wide variety of habitats from arid deserts and grasslands through mixed conifer forests. Feeds over water and along washes. Feeds almost entirely on moths. Needs rock crevices in cliffs or caves for roosting.	Not Expected	The study area does not contain suitable foraging habitat (water, washes) or roosting habitat (cliffs or caves).
Eumops perotis californicus western mastiff bat	None/None G5T4/S3S4 SSC	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	Low	May utilize site for foraging. Adjacent valley oaks (<i>Quercus lobata</i>) north of study area may provide suitable roosting habitat, but no suitable roosting habitat is present within study area.
<i>Taxidea taxus</i> American badger	None/None G5/S3 SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Low	Only marginally suitable habitat for this species is present in the study area given the adjacent development. Suitable burrows were not observed during the reconnaissance survey.



SR = State Rare

SDL = State Delisted

FP = CDFW Fully Protected

WL = CDFW Watch List

SSC = CDFW Species of Special Concern

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations		
Sensitive Natural Co	ommunities					
California Walnut Woodland	None/None G2/S2.1		Not Present	This natural community was not observed in the study area during the reconnaissance survey.		
Mainland Cherry Forest	None/None G1/S1.1		Not Present	This natural community was not observed in the study area during the reconnaissance survey.		
Riversidian Alluvial Fan Sage Scrub	None/None G1/S1.1		Not Present	This natural community was not observed in the study area during the reconnaissance survey.		
Southern California Threespine Stickleback Stream	None/None GNR/SNR		Not Present	This natural community was not observed in the study area during the reconnaissance survey.		
Southern Coast Live Oak Riparian Forest	None/None G4/S4		Not Present	This natural community was not observed in the study area during the reconnaissance survey.		
Southern Cottonwood Willow Riparian Forest	None/None G3/S3.2		Not Present	This natural community was not observed in the study area during the reconnaissance survey.		
Southern Riparian Scrub	None/None G3/S3.2		Not Present	This natural community was not observed in the study area during the reconnaissance survey.		
Southern Willow Scrub	None/None G3/S2.1		Not Present	This natural community was not observed in the study area during the reconnaissance survey.		
Valley Oak Woodland	None/None G3/S2.1		Not Present	This natural community was not observed in the study area during the reconnaissance survey.		
Status: Federal/State		CNPS California Rare Plant F	tank (CRPR)			
FE = Federal Endangere	ed	1A = Presumed Extirpated in	California, and eith	er rare or extinct elsewhere		
FT = Federal Threatened FC = Federal Species of Concern		1B = Rare, Threatened, or En	1B = Rare, Threatened, or Endangered in California and elsewhere 2A = Presumed Extirpated in California, but common elsewhere			
		2A = Presumed Extirpated in				
PFT = Proposed Federa	l Threatened	2B = Rare, Threatened, or En	2B = Rare, Threatened, or Endangered in California, but common elsewhere			
FDL = Federal Delisted		3 = Need more information (3 = Need more information (a Review List)			
SE = State Endangered		4 = Plants of Limited Distribu	4 = Plants of Limited Distribution (a Watch List)			
ST = State Threatened		CRPR Threat Code Extension	CRPR Threat Code Extension			
SCE = State Candidate	Endangered	.1 = Seriously threatened in (California (more tha	an 80 percent of occurrences threatened /		
CD CL-L- D				· · · · · · · · · · · · · · · · · · ·		

high degree and immediacy of threat)

moderate degree of immediacy of threat)

.3 = Not very threatened in California (less than 20 percent of occurrences threatened / low degree of immediacy of threat or no current threats known)

.2 = Moderately threatened in California (20 to 80 percent of occurrences threatened /





Potential to
Occur in
Scientific Name Project Habitat Suitability/
Common Name Status Habitat Requirements Area Observations

Other Statuses

G1 or S1 Critically Imperiled Globally or Subnationally (state)

G2 or S2 Imperiled Globally or Subnationally (state)

G3 or S3 Vulnerable to extirpation or extinction Globally or Subnationally (state)

G4/5 or S4/5 Apparently secure, common and abundant

GH or SH Possibly Extirpated – missing; known from only historical occurrences but still some hope of rediscovery

Additional notations may be provided as follows

T – Intraspecific Taxon (subspecies, varieties, and other designations below the level of species)

Q – Questionable taxonomy that may reduce conservation priority

? – Inexact numeric rank



Well 205 Groundwater Treatment Project

Coastal California Gnatcatcher Focused Survey Report

prepared for

Santa Clarita Valley Water Agency

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Contact: Rick Vasilopulos, Water Resources Planner

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March 2021



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1 Introduction

Rincon Consultants, Inc. (Rincon) herein presents the results of focused surveys for the federally threatened coastal California CAGN (*Polioptila californica californica*; CAGN). The surveys were conducted on behalf of the Santa Clarita Valley Water Agency for the Well 205 Groundwater Treatment Project and for compliance with the U.S. Fish and Wildlife Service (USFWS) Section 10(a) of the Federal Endangered Species Act (FESA), Special Terms and Conditions for Endangered and Threatened Wildlife Species Permit.

The project site is located in the city of Santa Clarita, Los Angeles County, California (Figure 1). The project would involve construction and operation of a new groundwater treatment facility for treatment of perchlorate and other groundwater contaminants at the existing Well 205 site. Construction of the new groundwater treatment facility would require vegetation removal.

The survey area includes all suitable habitat surrounding the existing well and an additional 500-foot buffer (Figure 2). All surveys for the CAGN were conducted by Rincon biologist Kelly Rios under USFWS permit number TE-018909-5.

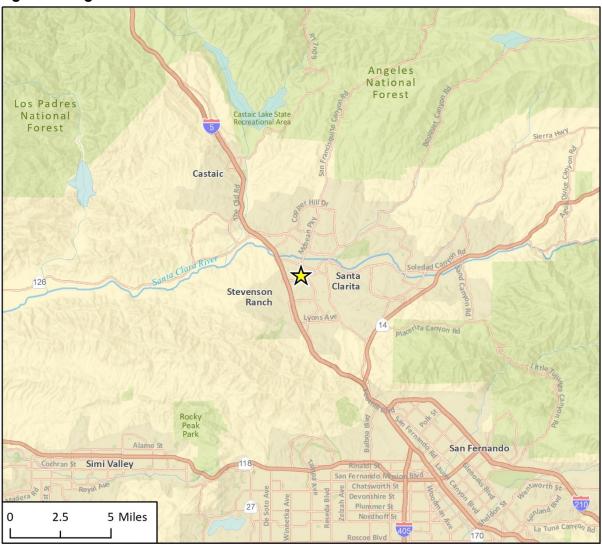
2 Methodology

Notification to commence protocol surveys for CAGN was submitted to the USFWS Ventura Field Office via email on September 28, 2020 by Kelly Rios. Non-breeding season surveys were conducted pursuant to Section IV of the USFWS *Coastal California CAGN (Polioptila californica californica) Presence/Absence Survey Protocol*, issued February 28, 1997 and revised July 28, 1997.

The survey window was within the non-breeding season (June 30 through March 14), and nine surveys were completed at least two weeks apart during this time. The surveys occurred between 0700 and 1200 hours in all portions of the project site and buffer containing suitable coastal sage scrub habitat, hereafter referred to as the survey area. Surveys were not conducted during inclement weather conditions (e.g., excessive or abnormal heat, wind, rain, fog).

The biologist entered the survey area from Valencia Boulevard. She slowly walked linear transects throughout the survey area, stopping at approximately 50-foot intervals to play an audio recording of CAGN vocalizations. Binoculars were used to aid in observing habitat for CAGN and other avian species. The recording was played for several seconds at each interval, followed by a brief pause to listen for a response. If any CAGNs were observed, the age, sex, breeding status, and behavioral characteristics were documented, when possible.

Figure 1 Regional Location



Imagery provided by Esri and its licensors © 2020.





g 1 Regional Location

Figure 2 Coastal California Gnatcatcher Survey Area



3 Project Location and Environmental Setting

The approximately 5-acre project site is located east of Interstate 5 and west of State Route 14 (Figure 1). Generally, the project site is located just west of the northwest intersection of Valencia Boulevard and McBean Parkway in the city of Sant Clarita. Specifically, the CAGN survey area is located north of Valencia Boulevard and west of the McBean Regional Transit Center and located on Assessor's Parcel Number 2861-066-002. The survey area is within the *Newhall* U.S. Geological Survey 7.5-minute topographic quadrangle. The site does not occur in federally designated Critical Habitat for the CAGN. Adjacent land uses consist of open space to the north, residential developments to the south and west, and the McBean Regional Transit Center is located to the east.

Vegetation communities and land cover types within the survey area include California buckwheat scrub, purple sage scrub, upland mustards, ornamental landscaping, bare ground, and developed areas.

California Buckwheat Scrub

The shrub layer of this community ranges from intermittent to relatively dense and is composed almost entirely of California buckwheat (*Eriogonum fasciculatum*). Tamarisk (*Tamarix ramosissima*) and coyote brush (*Baccharis pilularis*) shrubs are occasionally present as scattered individuals. The herbaceous layer ranges from absent to sparse and consists of non-native species such as tocalote (*Centaurea melitensis*) and tumble mustard (*Hirschfeldia incana*).

Purple Sage Scrub (Salvia leucophylla Shrubland Alliance)

Purple sage (*Salvia leucophylla*) is dominant in the open shrub layer in this habitat with mock heather (*Ericameria ericoides*) and coyote brush occasionally present as scattered individuals. The herbaceous layer is dense and consists primarily of non-native species including tocalote, tumble mustard, and black mustard (*Brassica nigra*).

Upland Mustards

Black mustard is overwhelmingly dominant in the dense herbaceous layer of this land cover type. Other commonly encountered herbaceous species include tumble mustard, tocalote, and red brome (*Bromus madritensis*). In the flat portion of the study area surrounding the existing Well 205 site, the herbaceous layer is more sparse and also contains telegraph weed (*Heterotheca grandiflora*), vinegar weed (*Trichostema lanceolatum*), Canada horseweed (*Erigeron canadensis*), and prickly lettuce (*Lactuca serriola*).

4 Species Background

The CAGN belongs to the old-world warbler and CAGN family, Sylviidae. It is a small blue-gray songbird that measures 4.5 inches and weighs 0.2 ounces. It has dark blue-gray feathers on its back and grayish-white feathers on its underside. The wings have a brownish wash to them. Its long tail is mostly black with white outer tail feathers, and the species has a thin, small bill. The males have a

Well 205 Groundwater Treatment Project

black cap during the spring and summer that is absent in the winter. Both males and females have white rings around their eyes.

The CAGN is a non-migratory songbird found on the coastal slopes of southern California. It ranges from Ventura County south to northwest Baja California, Mexico (Atwood et al. 1999; Jones and Ramirez 1995). It is strongly associated with coastal sage scrub habitats below 820 feet in elevation in coastal areas and between 820 and 1,640 feet in elevation in inland areas (Atwood and Bolsinger 1992); however, not all types of coastal sage scrub communities are used or preferred. This species appears to be most abundant in areas dominated by California sagebrush and California buckwheat. CAGN numbers are generally low in coastal habitats dominated by black sage (*Salvia mellifera*), white sage, or lemonade berry. In inland areas, habitats dominated by black sage may be used more regularly (Atwood and Bontrager 2001).

The breeding season of the CAGN extends from late February through August with peak nesting occurring from mid-March through mid-May. The breeding territory size of the CAGN ranges from 2 to 22 acres with home ranges expanding up to 39 acres during the non-breeding season (Bontrager 1991; USFWS 1993). Nest parasitism by brown-headed cowbirds (*Molothrus ater*) has been documented (Unitt 1984). Typically, there is a high rate of nest failure each breeding season. This is offset by rapid and persistent re-nesting efforts; a breeding pair may attempt to nest as many as 10 times in a year, producing up to three successful broods in a season (Atwood and Bontrager 2001). There is evidence that this species is also susceptible to nest predation by various animals such as snakes, coyote (*Canis latrans*), foxes, rodents, and other birds, such as California scrub-jay (*Aphelocoma californica*) (Atwood et al. 1999).

Population estimates for the CAGN vary. In the 1980s and 1990s, qualitative estimates of the population size were made but were not based on rigorous sampling (USFWS 2010). At the time of listing in 1993, an estimated 2,562 CAGN pairs remained in the U.S., while about 2,800 pairs were reported in Baja California (USFWS 1993). In 1999, the USFWS estimated U.S. populations to be 2,735: San Diego County at 1,917 pairs, Orange County at 643 pairs, Los Angeles County at 144 pairs, San Bernardino County at 27 pairs, and Ventura County at 4 pairs (Atwood and Bontrager 2001). In a recent 2008 study (using methods supported by probability theory), an estimated 1,324 CAGN pairs were documented over a 111,006-acre area on public and quasi-public lands of Orange and San Diego counties (Winchel and Doherty 2008). The recent sampling timeframe covered only a portion of the U.S. range, focusing on the coast, and was limited to one year. It is not valid to extrapolate beyond the sampling frame, but it is likely there are more CAGNs in the U.S. portion of the range than previously estimated (USFWS 2010). CAGN population sizes are known to fluctuate from year to year, further complicating any trend assessment (Atwood and Bontrager 2001).

The CAGN is federally listed as threatened and is a California Department of Fish and Wildlife Species of Special Concern. The USFWS listed the CAGN as threatened pursuant to the FESA of 1973 as amended on March 30, 1993 (USFWS 1993). Critical habitat for the CAGN was designated on October 24, 2000 and revised on December 12, 2007 (USFWS 2007).

The CAGN's range and distribution is closely aligned with coastal sage scrub vegetation. The cumulative loss of coastal sage scrub vegetation to urban and agricultural development is the primary cause of this species' decline. Much of the species' current range in the U.S. is now or is anticipated to be covered by large, regional Habitat Conservation Plans permitted under Section 10(a)(1)(B) of FESA and under the State of California's Natural Community Conservation Planning Act. Regional Habitat Conservation Plans have greatly reduced the magnitude of threats to this species by directing development toward certain areas, while preserving core and linkage habitat areas (USFWS 2010).

5 Survey Results and Discussion

Survey dates, times, and weather conditions are listed in Table 1 below. No CAGN were observed or otherwise detected during the nine non-breeding season protocol surveys.

Table 1 Well 205 Coastal California Gnatcatcher Survey Conditions and Results

Kelly Rios	1000; 77°F, winds 1-2 mph, 0%		
	clouds	1130; 97°F, winds 1-2 mph, 0% clouds	No
Kelly Rios	0745; 51°F, winds 1-2 mph, 0% clouds	0920; 58°F, winds 1-2 mph, clear	No
Kelly Rios	1010; 60°F, winds 1-2 mph, 10% clouds	1145; 65°F, winds 1-2 mph, clear	No
Kelly Rios	0830; 50°F, winds 1-2 mph, 20% clouds	1005; 56°F, winds 1-2 mph, 20% clouds	No
Kelly Rios	0845; 53°F, winds 1-2 mph, 10% clouds	1010; 54°F, winds 1-2 mph, 10% clouds	No
Kelly Rios	0830; 54°F, winds 1-2 mph, clear	1000; 56°F, winds 1-2 mph, clear	No
Kelly Rios	0735; 50°F, winds 1-2 mph, clear	1000; 55°F, winds 1-2 mph, clear	No
Kelly Rios	0925; 56°F, winds 5-10 mph, clear	1045; 57°F, winds 7-12 mph, clear	No
Kelly Rios	0945; 52°F, winds 1-2 mph, clear	1115; 55°F, winds 1-2 mph, clear	No
	Kelly Rios Kelly Rios	clouds Kelly Rios 1010; 60°F, winds 1-2 mph, 10% clouds Kelly Rios 0830; 50°F, winds 1-2 mph, 20% clouds Kelly Rios 0845; 53°F, winds 1-2 mph, 10% clouds Kelly Rios 0830; 54°F, winds 1-2 mph, clear Kelly Rios 0735; 50°F, winds 1-2 mph, clear Kelly Rios 0925; 56°F, winds 5-10 mph, clear Kelly Rios 0945; 52°F, winds 1-2 mph,	Kelly Rios clouds clear Kelly Rios 1010; 60°F, winds 1-2 mph, 10% clouds 1145; 65°F, winds 1-2 mph, clear Kelly Rios 0830; 50°F, winds 1-2 mph, 20% clouds 1005; 56°F, winds 1-2 mph, 20% clouds Kelly Rios 0845; 53°F, winds 1-2 mph, 100; 54°F, winds 1-2 mph, 10% clouds 1000; 56°F, winds 1-2 mph, clear Kelly Rios 0830; 54°F, winds 1-2 mph, clear 1000; 56°F, winds 1-2 mph, clear Kelly Rios 0735; 50°F, winds 1-2 mph, clear 1045; 57°F, winds 7-12 mph, clear Kelly Rios 0945; 52°F, winds 1-2 mph, clear 1115; 55°F, winds 1-2 mph, clear Kelly Rios 0945; 52°F, winds 1-2 mph, clear 1115; 55°F, winds 1-2 mph, clear

Overall avian activity and diversity was generally moderate during the surveys and common avian species expected to occur in coastal sage scrub habitats were observed on a regular basis. Brown-headed cowbirds (*Molothrus ater*), considered to be a nest parasite to coastal CAGNs and other avian species, were not observed in or near the survey area over the course of the surveys. Appendix A provides a complete list of avian species detected or observed in the survey area during the surveys.

6 Certification

I hereby certify that the statements furnished above and in the attached exhibits present data and information required for this biological evaluation and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Signed: _____ Date: ____ March 19, 2021

Kelly Rios Senior Biologist TE-018909-5

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Avian Species Observed/Detected in the Survey Area

Avian Species Observed/Detected in the Survey Area

Scientific Name	Common Name
Odontophoridae	New World Quail
Callipepla californica	California quail
Accipitridae	Hawks, Kites, and Eagles
Buteo jamaicensis	red-tailed hawk
Columbidae	Pigeons & Doves
Zenaida macroura	mourning dove
Trochilidae	Hummingbirds
Calypte anna	Anna's hummingbird
Selasphorus sasin	Allen's hummingbird
Picidae	Woodpeckers and Sapsuckers
Colaptes auratus	northern flicker
Picoides nuttallii	Nuttall's woodpecker
Tyrannidae	Tyrant Flycatchers
Sayornis nigricans semiatra	black phoebe
Sayornis saya	Say's phoebe
Corvidae	Crows, Jays, and Magpies
Aphelocoma californica	California scrub-jay
Corvus brachyrhynchos	American crow
Corvus corax	common raven
Paridae	Chickadees, Titmice
Baeolophus inornatus	oak titmouse
Aegithalidae	Bushtits
Psaltriparus minimus	bushtit
Troglodytidae	Wrens
Thrynomanes bewickii	Bewick's wren
Sylviidae	Sylviid Warblers
Polioptila caerulea	blue-gray California gnatcatcher
Regulidae	Kinglets
Regulus calendula	Ruby-crowned kinglet
Mimidae	Mockingbirds and Thrashers
Mimus polyglottos	northern mockingbird
Toxostoma redivivum	California thrasher
Bombycillidae	Waxwings, Phainopelas
Bombycilla cedrorum	cedar waxwing
Parulidae	New World Warblers
Setophaga coronata	yellow-rumped warbler
Setophaga townsendi	Townsend's warbler
Emberizidae	Emberizids
Melozone crissalis	California towhee

Santa Clarita Valley Water Agency Well 205 Groundwater Treatment Project

Scientific Name	Common Name		
Fringillidae	Finches		
Carpodacus mexicanus	house finch		
Spinus psaltria	lesser goldfinch		
Passerellidae	New World Sparrows		
Zonotrichia leucophrys	White-crowned sparrow		

Appendix C

Cultural Resources Assessment



February 23, 2022 Project No: 20-10090

Mr. Rick Vasilopulos, Water Resources Planner Santa Clarita Valley Water Agency 26521 Summit Circle Santa Clarita, California 91350

Via email: rvasilopulos@scvwa.org

Subject: Cultural Resources Assessment for the Well 205 Groundwater Treatment Facility Project,

Santa Clarita, Los Angeles County, California

Dear Mr. Vasilopulos:

The Santa Clarita Valley Water Agency (SCV Water) retained Rincon Consultants, Inc. (Rincon) to conduct a cultural resources assessment for the proposed Well 205 Groundwater Treatment Facility Project (project) in Santa Clarita, Los Angeles County, California. This letter report documents the results of a cultural resources records search, Native American outreach, and a pedestrian field survey. The proposed project is subject to the California Environmental Quality Act (CEQA), and SCV Water is the lead agency under CEQA.

Project Site

The proposed project site consists of a 1.75-acre portion of Accessor's Parcel Number 2861-066-002, located on Valencia Boulevard near McBean Parkway in Santa Clarita, Los Angeles County, California. The proposed project site lies within the United States Geological Survey *Newhall* quadrangle, Township 4 North, Range 16 West, and Section 20-22 and 28 (Figure 1 and Figure 2, Attachment A). The proposed project site is partially developed with the existing Well 205 groundwater well and pump facility.

Project Description

The proposed project involves the construction and operation of a new 0.8-acre (33,000-square-foot) groundwater treatment facility for the treatment of perchlorate and other groundwater contaminants at the existing Well 205 site. The new treatment facility would consist of a chemical building, water tanks, pumps, and treatment equipment alongside the existing Well 205 facility at the site. The proposed project includes construction of a new 612-square foot chemical building located approximately 10 feet southeast of the existing Well 205 facility. The existing facility would remain in place.

The proposed facility would be enclosed by an 8-foot tall masonry and concrete retaining wall with two controlled entry gates. The proposed project also includes a shade structure and approximately 50 mature trees along the western portion of the proposed project site.

The maximum depth of excavation for the project would be six feet below ground surface.

Rincon Consultants, Inc.

180 North Ashwood Avenue Ventura, California 93003

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info@rinconconsultants.com www.rinconconsultants.com



Cultural Resources Records Search

Rincon received records search results from the California Historical Resources Information System at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton on September 14, 2020. The purpose of the records search was to identify previously conducted cultural resources studies and previously recorded cultural resources within the project site and a 0.5-mile radius extending from the project site. In addition to the SCCIC records search, a review of the National Register of Historic Places, the California Register of Historical Resources, the Office of Historic Preservation Historic Properties Directory, the California Inventory of Historic Resources, and the Archaeological Determinations of Eligibility list was conducted.

The SCCIC records search identified 20 previously conducted cultural resources studies performed within the 0.5-mile radius of the project site (Table 1 and Attachment B), three of which evaluated portions of the current project site (LA-02477, LA-03297, and LA-11246), as described below.

The SCCIC search did not identify any previously recorded cultural resources within the project site or the 0.5-mile radius extending from the project site.

Table 1 Previous Cultural Resource Studies within 0.5-mile of the Project Site

Report Number	Author	Year	Title	Relationship to Project Site
LA-00463	McIntyre, M. J.	1979	Cultural Resource Reconnaissance of a Proposed Zone Change 6426 Near Saugus, Upper Santa Clara River Valley, Los Angeles County, California	Outside
LA-00508	Foster, J. M.	1979	Cultural Resource Reconnaissance of a Proposed Zone Change 6427 Near Saugus, Upper Santa Clara River Valley, Los Angeles County, California	Outside
LA-00642	Anonymous	1979	Preliminary Draft Environmental Impact Report for Auto Expansion Center, Valencia, California. Tentative Parcel Map 11614	Outside
LA-01019	Hawthorne, J. G. and L. Schupp-Wessel	1980	Cultural Resource Survey and Assessment of 89+ Acres in Valencia (zc-79-012 and zc-80-078), North West Los Angele. County, California	Outside s
LA-01317	Tartaglia, L. J.	1983	Preliminary Archaeological Reconnaissance San Francisquito Canyon	Outside
LA-01342	Tartaglia, L. J.	1984	Cultural Resources Report San Francisquito Canyon	Outside
LA-02450	Tartaglia, L. J.	1991	Cultural Resources Archaeological Survey - I-5 Freeway and Valencia Blvd., Valencia, California	Outside
LA-02477	Whitney-Desautels, N. A.	1980	Archaeological Assessment Reclaimed Water Distribution System Los Angeles County, California, Preliminary Report	Within
LA-03135	Whitley, D. S. and J. M. Simon	1994	Phase I Archaeological Survey and Cultural Resources Assessment for the Southriver Project Area, Santa Clarita, Los Angeles County, California	Outside
LA-03289	David, G.	1990	Mobil M-70 Pipeline Replacement Project Cultural Resource Survey Report for Mobil Corporation	Outside



Report Number	Author	Year	Title	Relationship to Project Site
LA-03297	Maxon, P. O.	1998	Archaeological Monitoring for the 184.8 Acre Woodlands, Valencia Development, Tentative Tract Number 44374, Los Angeles County, Santa Clarita, California	Within
LA-03895	Pence, R. L.	1977	Archaeological Assessment of the Proposed Oxnard LNG Pipeline Route From La Vista, Ventura County, to Quiqley, Los Angeles County	Outside
LA-05651	Duke, C.	2002	Cultural Resource Assessment: Cingular Wireless Facility No. Vy 148-01, Los Angeles County, California	Outside
LA-05851	Chandler, E. N., C. D. Cotterman, B. D. Smith, and V. M. Van Hemelryck	2000	Cultural Resources Inventory for Improvements to Interstate 5 and Magic Mountain Parkway Interchange, Los Angeles County, California	Outside
LA-05852	Duke, C.	2002	Cultural Resource Assessment, AT&T Wireless Services Facility No. D366d, Los Angeles County, California	Outside
LA-08255	Arrington, C. and N. Sikes	2006	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project, State of California: Volumes I and II	Outside
LA-08958	Tsunoda, K. and A. Moreno	2007	Archaeological Survey Report for Southern California Edison Company Saugus-North Oaks of Cable Project, Los Angeles County, California (wo#8456-0639, Jo#6155)	Outside
LA-11228	Unknown	2004	Environmental Analysis – Onshore Component of BHP Billiton LNG International Inc. Cabrillo Port Project	Outside
LA-11246	McKenna, J.	2009	A Class III/Section 106 and Phase I CEQA Cultural Resources Investigation of the Proposed McBean Regional Transit Center Park and Ride Project Area in the City of Santa Clarita, Los Angeles County, California	Within
LA-12526	Ehringer, C., K. Ramirez, and M. Vader	2013	Santa Clarita Valley Sanitation District Chloride TMDL Facilities Plan Project, Phase I Cultural Resources Assessment	Outside

LA-02477

Scientific Resource Surveys conducted an archaeological assessment for the Reclaimed Water Distribution System Project in Los Angeles County, California (Whitney-Desautels 1980). The project consisted of approximately 9.4 miles of pipeline alignment within Valencia Boulevard (immediately southeast of the project site), McBean Parkway, Magic Mountain Parkway, Rye Canyon Road, Bouquet Canyon Road, Stanford Avenue, and The Old Road. The assessment did not identify any cultural resources at the project site.



LA-03927

Due to the COVID-19 pandemic, the SCCIC is currently only able to provide studies that are in digital format. The study is not in digital format. Therefore, the SCCIC could not provide LA-03927.

LA-11246

A Cultural Resources Investigation was conducted for the McBean Regional Transit Center Park and Ride Project in Santa Clarita, California (McKenna 2009), immediately northeast of the project site. The project assessed in LA-11246 developed a Park and Ride transfer station near the intersection of Valencia Boulevard and McBean Parkway with a drop-off platform, parking spaces, bike lockers, a commuter bus platform, site lighting, and pedestrian trails. The investigation evaluated the eastern portion of the project site and did not identify any cultural resources.

Aerial Imagery and Historical Topographic Maps Review

Rincon completed a review of historical topographic maps and aerial imagery to ascertain the development history of the project site. Historical topographic maps from 1903 to 1967 depict the project site as undeveloped land (NETR Online 2020). Grading is evident in aerial imagery from 1947 to 1959 (NETR Online 2020). Aerial imagery from 1969 to 1994 show the project site next to Valencia Boulevard with historical topographic maps depicting Valencia Boulevard south of the project site beginning in 1970 (NETR Online 2020). Imagery from 2002 depicts the project site in its current condition (NETR Online 2020).

Sacred Lands File Search

Rincon contacted the Native American Heritage Commission (NAHC) on September 2, 2020, to request a Sacred Lands File (SLF) search of the project site. As part of this request, Rincon asked the NAHC to provide a list of Native American groups and/or individuals culturally affiliated with the area who may have knowledge of tribal heritage resources at the project site and/or in the vicinity (Attachment C). The NAHC emailed a response on September 17, 2020, stating the SLF search was negative, indicating no tribal heritage resources are noted in the project site vicinity. Rincon sent letters on September 21, 2020 to the 16 Native American contacts provided by the NAHC to request information regarding their knowledge of tribal heritage resources in the vicinity that may be affected by the proposed project.

Jairo Avila, Tribal Historic and Cultural Preservation Officer of the Fernandeño Tataviam Band of Mission Indians responded on October 1, 2020 stating that the tribe will provide information during the Assembly Bill 52 consultation process.

Northern Chumash Tribal Council Spokesperson Fred Collins responded on October 7, 2020 stating that the Council supports the recommendations of the local Tribal Governments.

As of the date of this report, no other responses have been received.

Pedestrian Field Survey

Rincon Cultural Resources Specialist Alexandra Madsen, MA, conducted a pedestrian field survey of the project site on September 22, 2020. Ms. Madsen walked a series of pedestrian transects oriented



generally north-south and spaced no more than 10 meters apart across the project site. Exposed ground surfaces were inspected for prehistoric cultural materials (e.g., flaked stone tools, tool-making debris, stone milling tools, ecofacts [marine shell and bone]), soil discoloration that might indicate the presence of a prehistoric midden deposit, historic-period debris (e.g., metal, glass, ceramics), and features that indicate the presence of former historic-period structures or buildings (e.g., standing exterior walls, foundations). Rodent burrows and drainage banks allowed visual inspection of subsurface soils. Dense vegetation and development of the existing Well 205 facility limited visibility to approximately 10 percent of the project site. Due to the poor visibility, boot scrapes were conducted every five meters where possible to remove non-native vegetation and improve ground visibility. Boot scrapes were approximately 12 centimeters in size. The surface soil consisted of light brown to gray sandy loam. No archaeological resources were identified during the pedestrian field survey. Figures 3 through 6 in Attachment A document site conditions during the pedestrian field survey.

Findings and Recommendations

The background research did not identify any cultural resources within the project site, and no cultural resources were identified during the pedestrian field survey. Given the negative results of the background research, the negative results of previous studies in the vicinity, and the negative results of the current pedestrian survey of the project site, Rincon recommends a finding of *less-than-significant impacts to historical and archaeological resources* for the purposes of CEQA and does not recommend any additional cultural resources work at this time. The following measures are recommended in the unlikely case of unanticipated discoveries during ground-disturbing activities. Also included below is a summary of existing regulations regarding the discovery of human remains.

Cultural Resources Sensitivity Training

Prior to the start of ground-disturbing activities, an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983) should conduct cultural and tribal cultural resources sensitivity training for all construction workers involved in ground-disturbing activities. A local Native American representative should participate in the sensitivity training and have the opportunity to distribute information regarding cultural resources and/or protection of cultural resources.

Unanticipated Discovery of Archaeological Resources

In the unlikely event archaeological resources are unexpectedly encountered during ground-disturbing activities, work within 50 feet of the find should be halted, and an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983) should be contacted immediately to evaluate the find. If the find is prehistoric, then a local Native American representative should also be contacted to participate in the evaluation of the find. Impacts to the find should be avoided to the extent feasible; methods of avoidance may include, but should not be limited to, capping, fencing, or project redesign. If necessary, the archaeologist may be required to prepare a treatment plan for archaeological testing in consultation with the local Native American representative. If the discovery proves to be eligible for the California Register of Historical Resources and cannot be avoided by the proposed project, additional work, such as data recovery excavation, may be warranted to mitigate any significant impacts to historical resources.



Unanticipated Discovery of Human Remains

In the unlikely event of an unanticipated discovery of human remains, all ground-disturbing activities in the vicinity of the discovery must be immediately suspended and redirected elsewhere. All steps required to comply with State of California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98 must be implemented, including contacting the Los Angeles County Department of Medical Examiner-Coroner. If the human remains are determined to be prehistoric, the coroner will notify the NAHC, which will determine and notify a most likely descendant (MLD). The MLD shall complete an inspection of the site and provide recommendations for treatment to the landowner within 48 hours of being granted access.

Please do not hesitate to contact Rincon with any questions regarding this cultural resources assessment.

Sincerely,

Rincon Consultants, Inc.

Courtney Montgomery, MA

Archaeologist

Ken Victorino, MA, RPA Senior Principal Investigator

Christopher A. Duran, MA, RPA Principal/Senior Archaeologist

Attachments

Attachment A Figures

Attachment B SCCIC Records Search Results

Attachment C Native American Outreach



References

McKenna, Jeanette A.

2009. A Class III/Section 106 and Phase I CEQA Cultural Resources Investigation of the Proposed McBean Regional Transit Center Park and Ride Project Area in the City of Santa Clarita, Los Angeles County, California.

National Park Service

1983. Archaeological and Historic Preservation: Secretary of the Interior's Standards and Guidelines. Electronic document, online at https://www.nps.gov/subjects/historicpreservation/upload/standards-guidelines-archeology-historic-preservation.pdf (accessed February 2022).

NETR Online

2020. Historic Aerials. https://www.historicaerials.com/viewer (accessed September 2020).

Whitney-Desautels, Nancy A.

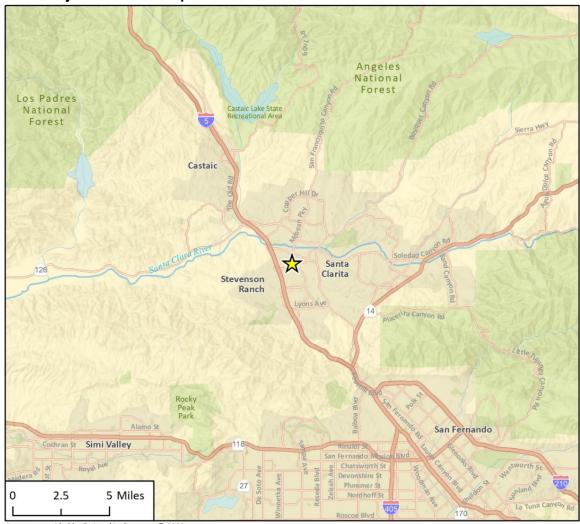
1980. Archaeological Assessment Reclaimed Water Distribution System Los Angeles County, *California* Preliminary Report.

Attachment A

Figures



Figure 1 Project Location Map



Imagery provided by Esri and its licensors © 2020.







Figure 2 Project Boundary Map

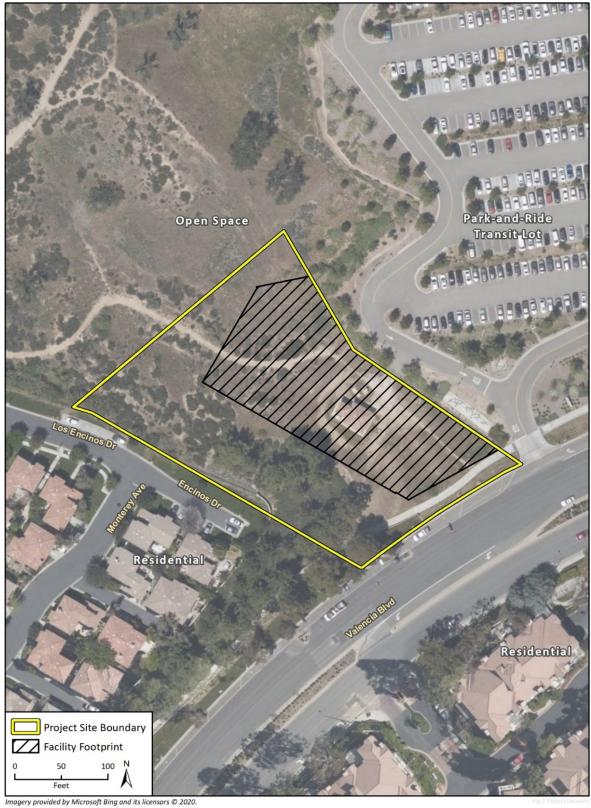




Figure 3 Overview of Project Site, Facing South Towards Valencia Boulevard



Figure 4 Overview of Project Site, Facing Northwest





Figure 5 Vegetation on Site, Facing North



Figure 6 Overview of Project Site, Facing Southeast Toward Valencia Boulevard and Adjacent Residences





SCCIC Records Search Results

California Historical Resources Information System

CHRIS Data Request Form

ACCESS AND USE AGREEMENT NO.: 20	IC FILE	NO.:
To: South Central Coastal		Information Center
Print Name: Courtney Montgomery		Date: September 2, 2020
Affiliation: Rincon Consultants, Inc.		
Address: 180 N. Ashwood Avenue		
_{City:} <u>Ventura</u>	_ _{State:} CA	_{Zip:} 93003
Phone: 805-644-4455 Fax: 805-644-4455	_{Email:} cmonto	gomery@rinconconsultants.con
Billing Address (if different than above):		
Billing Email: ap@rinconconsultants.com		illing Phone: 805-644-4455
Project Name / Reference: 20-10090 Water Well 20)5	
Project Street Address: 34.4131201303, -118.5635	52675, APN 286	1-066-002
County or Counties: Los Angeles		
Township/Range/UTMs: T 4N, R 16W, S 20-22, 28		
USGS 7.5' Quad(s): Newhall		
PRIORITY RESPONSE (Additional Fee): yes / no		
TOTAL FEE NOT TO EXCEED: \$\frac{600}{}\$ (If blank, the Information Center will contact you if the fe	e is expected to ex	ceed \$1,000.00)
Special Instructions:		
Information Center Use Only		
Date of CHRIS Data Provided for this Request:		
Confidential Data Included in Response: yes / no /		
Notes:		

California Historical Resources Information System

CHRIS Data Request Form

Mark the request form as needed. Attach a PDF of your project area (with the radius if applicable) mapped on a 7.5' USGS topographic quadrangle to scale 1:24000 ratio 1:1 neither enlarged nor reduced and include a shapefile of your project area, if available. Shapefiles are the current CHRIS standard for submitting digital spatial data for your project area or radius. **Check with the appropriate Information Center for current availability of digital data products.**

- Documents will be provided in PDF format. Paper copies will only be provided if PDFs are not available at the time of the request or under specially arranged circumstances.
- Location information will be provided as a digital map product (Custom Maps or GIS data) unless the area has not yet been digitized. In such circumstances, the IC may provide hand drawn maps.

For product fees, see the CHRIS IC Fee Structure on the OHP website

1.	Map Format Choice:			
	Select One: Custom GIS Maps GIS Data GIS Data	Custom GIS Maps and	GIS Data 🔲 No Map	s 🔲
	Any selection below left unma	rked will be considere	d a "no. "	
2.	Location Information: ARCHAEOLOGICAL Resource Locations NON-ARCHAEOLOGICAL Resource Locations Report Locations "Other" Report Locations ²	yes / no yes	Within 0.5 mi. yes / no /	radius
3.	Database Information: (contact the IC or CHRIS Coordinator for product example)	oles)		
	ARCHAEOLOGICAL Resource Database ¹	Within project area	Within 0.5 mi.	radius
	List Detail Excel Spreadsheet	yes / no yes / no yes / no ves	yes / no yes / no yes / no ves	
	NON-ARCHAEOLOGICAL Resource Database List Detail Excel Spreadsheet Report Database ¹	yes / no yes / no yes / no ves / yes / no ves /	yes / no yes / no yes / no ves	
	List Detail Excel Spreadsheet Include "Other" Reports ²	yes / no yes / yes / no yes /	yes / no ves	
4.	Document PDFs (paper copy only upon request):	Within project area	Within 0.5 mi.	radius
	ARCHAEOLOGICAL Resource Records ¹ NON-ARCHAEOLOGICAL Resource Records Reports ¹ "Other" Reports ²	yes / no ves / yes / no ves /	yes / no yes / no yes / no yes no •	

California Historical Resources Information System

CHRIS Data Request Form

5.	Eligibility Listings and Documentation:	Within project area	Within 0.5 mi.	radius
	OHP Built Environment Resources Directory ³ : (only available as Excel spreadsheet, digital database Directory listing only Associated documentation ⁴		yes ☐ / no ■ yes ☐ / no ■	raulus
	OHP Archaeological Resources Directory ^{1, 3} : (only available as Excel spreadsheet, digital database Directory listing only Associated documentation ⁴	yes / no / yes / no /	yes ■ / no ☐ yes ■ / no ☐	
	California Inventory of Historic Resources (1976): Directory listing only Associated documentation ⁴	yes	yes ☐ / no ■ yes ☐ / no ■	
6.	Additional Information:			

The following sources of information may be available through the Information Center. However, several of these sources are now available on the OHP website and can be accessed directly. The Office of Historic Preservation makes no guarantees about the availability, completeness, or accuracy of the information provided through these sources. Indicate below if the Information Center should review and provide documentation (if available) of any of the following sources as part of this request.

Caltrans Bridge Survey	yes ☐ / no 🔳
Ethnographic Information	yes 🔲 / no 🔳
Historical Literature	yes ☐ / no 🔳
Historical Maps	yes 🔲 / no 🔳
Local Inventories	yes ☐ / no 🔳
GLO and/or Rancho Plat Maps	yes ☐ / no 🗖
Shipwreck Inventory	yes 🔲 / no 🔳
Soil Survey Maps	yes □ / no 🔳

¹ In order to receive archaeological information, requestor must meet qualifications as specified in Section III of the current version of the California Historical Resources Information System Information Center Rules of Operation Manual and be identified as an Authorized User or Conditional User under an active CHRIS Access and Use Agreement.

² "Other" Reports GIS layer consists of report study areas for which the report content is almost entirely non-fieldwork related (e.g., local/regional history, or overview) and/or for which the presentation of the study area boundary may or may not add value to a record search.

³ Includes, but is not limited to, information regarding National Register of Historic Places, California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and historic building surveys. Previously known as the HRI then as HPD, now it is known as the Built Environment Resources Directory (BERD). Electronic fees will apply at 25¢ per excel line up to 999, 10¢ following. This documentation is the source of the official status codes for evaluated resources and compiled by the Office of Historic Preservation.

⁴ Associated documentation will vary by resource. Contact the IC for further details.

South Central Coastal Information Center

California State University, Fullerton Department of Anthropology MH-426 800 North State College Boulevard Fullerton, CA 92834-6846 657.278.5395 / FAX 657.278.5542 sccic@fullerton.edu

California Historical Resources Information System Orange, Los Angeles, and Ventura Counties

Records Search File No.: 21666.7759 9/14/2020 **Courtney Montgomery** Rincon Consultants, Inc. 180 N. Ashwood Avenue Ventura CA 93003 Re: Records Search Results for the 20-10090 Water Well 205 Project The South Central Coastal Information Center received your records search request for the project area referenced above, located on the Newhall, CA USGS 7.5' quadrangle(s). Due to the COVID-19 emergency, we have temporarily implemented new records search protocols. With the exception of some reports that have not yet been scanned, we are operationally digital for Los Angeles, Orange, and Ventura Counties. See attached document for your reference on what data is available in this format. The following reflects the results of the records search for the project area and a ½-mile radius: As indicated on the data request form, the locations of resources and reports are provided in the following format: \square custom GIS maps \boxtimes shape files \square hand drawn maps Resources within project area: 0 None Resources within ½-mile radius: 0 None Reports within project area: 3 LA-02477, LA-03297, LA-11246 Reports within 1/2-mile radius: 17 SEE ATTACHED LIST **Resource Database Printout (list):** \square enclosed \square not requested \boxtimes nothing listed **Resource Database Printout (details):** \square enclosed \boxtimes not requested \square nothing listed Resource Digital Database (spreadsheet): \square enclosed \boxtimes not requested \square nothing listed \boxtimes enclosed \square not requested \square nothing listed **Report Database Printout (list): Report Database Printout (details):** \square enclosed \boxtimes not requested \square nothing listed Report Digital Database (spreadsheet): \square enclosed \boxtimes not requested \square nothing listed **Resource Record Copies:** \square enclosed \square not requested \boxtimes nothing listed \boxtimes enclosed \square not requested \square nothing listed **Report Copies:** OHP Built Environment Resources Directory (BERD) 2019: ⊠ available online; please go to https://ohp.parks.ca.gov/?page_id=30338

 \square enclosed \square not requested \boxtimes nothing listed

 \square enclosed \boxtimes not requested \square nothing listed

Archaeo Determinations of Eligibility 2012:

Los Angeles Historic-Cultural Monuments

Historical Maps:	\square enclosed \boxtimes not requested \square nothing listed	
Ethnographic Information:	⋈ not available at SCCIC	
Historical Literature:	⋈ not available at SCCIC	
GLO and/or Rancho Plat Maps:	⋈ not available at SCCIC	
Caltrans Bridge Survey:	⋈ not available at SCCIC; please go to	
http://www.dot.ca.gov/hq/structur/strmaint/historic.htm		
Shipwreck Inventory:	⋈ not available at SCCIC; please go to	
http://shipwrecks.slc.ca.gov/ShipwrecksDatabase/Shipwrecks Database.asp		
Soil Survey Maps: (see below)	⋈ not available at SCCIC; please go to	
sttp://wahaailaumay.pres.yada.gov/app/MahCailCymay.popy		

http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System,

Michelle Galaz Assistant Coordinator

Enclosures:

- (X) Emergency Protocols for LA, Orange, and Ventura County BULK Processing Standards 2 pages
- (X) GIS Shapefiles 20 shapes
- (X) Report Database Printout (list) 3 pages
- (X) Report Copies (within project area) 86 pages
- (X) Invoice # 21666.7759

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-00463		1979	McIntrye, Michael J.	Cultural Resource Reconnaissance of a Proposed Zone Change 6426 Near Saugus, Upper Santa Clara River Valley, Los Angeles County, California	Northridge Archaeological Research Center, CSUN	
LA-00508		1979	Foster, John M.	Cultural Resource Reconnaissance of a Proposed Zone Change 6427 Near Saugus, Upper Santa Clara River Valley, Los Angeles County, Calif.	Northridge Archaeological Research Center, CSUN	
LA-00642		1979	Anonymous	Preliminary Draft Environmental Impact Report for Auto Expansion Center, Valencia, California. Tentative Parcel Map 11614	Sikand Engineering Associates	
LA-01019		1980	Hawthorne, Janice G. and Leslie Schupp- Wessel	Cultural Resource Survey and Assessment of 89+ Acres in Valencia (zc-79-012 and Zc-80-078), North West Los Angeles County, California	Northridge Archaeological Research Center, CSUN	
LA-01317		1983	Tartaglia, Louis J.	Preliminary Archaeological Reconnaissance San Francisquito Canyon		19-120077
LA-01342		1984	Tartaglia, Louis J.	Cultural Resources Report San Francisquito Canyon		
LA-02450		1991	Tartaglia, Louis J.	Cultural Resources Archaeological Survey - I- 5 Freeway and Valencia Blvd., Valencia, California	Tartaglia, Louis James	
LA-02477		1989	Whitney-Desautels, Nancy A.	Archaeological Assessment Reclaimed Water Distribution System Los Angeles County, California Preliminary Report	Scientific Resource Surveys, Inc.	19-000823
LA-03135		1994	Whitley, David S. and Joseph M. Simon	Phase 1 Archaeological Survey and Cultural Resources Assessment for the Southriver Project Area, Santa Clarita, Los Angeles County, California	W & S Consultants	

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Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-03289		1990	Davis, Gene	Mobil M-70 Pipeline Replacement Project Cultural Resource Survey Report for Mobil Corporation	Dames & Moore	19-00034, 19-00059, 19-00060, 19-00067, 19-00077, 19-00095, 19-000169, 19-000194, 19-000213, 19-000216, 19-000248, 19-000408, 19-000409, 19-000410, 19-000411, 19-000412, 19-000441, 19-000444, 19-000475, 19-000490, 19-000491, 19-000492, 19-000493, 19-000645, 19-000645, 19-000645, 19-000645, 19-000925, 19-000926, 19-000927, 19-00093, 19-001015, 19-001305, 19-001834, 19-001835
LA-03297		1998	Maxon, Patrick O.	Archaeological Monitoring for the 184.8 Acre Woodlands, Valencia Development, Tentative Tract Number 44374, Los Angeles County, Santa Clarita, California Tentative Tract Number 44374, Los Angeles County, Santa Clarita, California	RMW Paleo Associates, Inc.	
LA-03895		1977	Pence, Robert L.	Archaeological Assessment of the Proposed Oxnard Lng Pipeline Route From La Vista, Ventura County, to Quiqley, Los Angeles County		
LA-05651		2002	Duke, Curt	Cultural Resource Assessment: Cingular Wireless Facility No. Vy 148-01 Los Angeles County, California	LSA Associates, Inc.	
LA-05851		2000	Chandler, Evelyn N., Cary D. Cotterman, Brenda D. Smith, and Valerie M. Van Hemelryck	Cultural Resources Inventory for Improvements to Interstate 5 and Magic Mountain Parkway Interchange Los Angeles County, California	Tetra Tech, Inc.	19-002190
LA-05852		2002	Duke, Curt	Cultural Resource Assessment At&t Wireless Services Facility No. D366d Los Angeles County, California	LSA Associates, Inc.	
LA-08255		2006	Arrington, Cindy and Nancy Sikes	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project State of California: Volumes I and Ii	SWCA Environmental Consultants, Inc.	

Page 2 of 3 SCCIC 9/13/2020 4:21:26 PM

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-08958		2007	Tsunoda, Koji and Moreno, A.	Archaeological Survey Report for Southern California Edison Company Saugus-north Oaks Fo Cable Project Los Angeles County, California (wo#8456-0639, Jo#6155)	Jones & Stokes	19-002105, 19-002132, 19-002898
LA-11228		2004	Unknown	Environmental Analysis - Onshore Component of BHP Billiton LNG International Inc. Cabrillo Port Project	Entrix, Incorporated	56-000013, 56-000223, 56-000665, 56-000666, 56-000726, 56-000823, 56-000918, 56-001205, 56-100030, 56-100059, 56-100060, 56-120002, 56-150013, 56-150021, 56-150022, 56-150023, 56-150024
LA-11246		2009	McKenna, Jeanette A.	A Class III/Section 106 and Phase I CEQA Cultural Resources Investigation of the Proposed McBean Regional Transit Center Park and Ride Project Area in the City of Santa Clarita, Los Angeles County, California	McKenna et al.	
LA-12526		2013	Ehringer, Candace, Ramirez, Katherine, and Vader, Michael	Santa Clarita Valley Sanitation District Chloride TMDL Facilities Plan Project, Phase I Cultural Resources Assessment	ESA	19-002150, 19-002233, 19-002234, 19-002681, 19-004321, 19-179645, 19-1866112, 19-186541, 19-186567, 19-186859, 19-187055, 19-188007, 19-190312, 19-190313, 19-190314, 19-190315, 19-190316, 19-190317, 19-190318, 19-190319, 19-190320, 19-190321, 19-190322, 56-001262, 56-151768

Page 3 of 3 SCCIC 9/13/2020 4:21:27 PM

Attachment C

Native American Outreach



Rincon Consultants, Inc.

250 East 1st Street, Suite 1400 Los Angeles, California 90012

213 788 4842 OFFICE AND FAX

info@rinconconsultants.com www.rinconconsultants.com

Sacred Lands File & Native American Contacts List Request Native American Heritage Commission

1550 Harbor Blvd, Suite 100 West Sacramento, CA 95691 (916) 373-3710 (916) 373-5471 – Fax nahc@nahc.ca.gov

Information below is required for a Sacred Lands File Search

Project Title: Water Well 205 Groundwater Treatment Facility Project

County: Los Angeles

USGS Quadrangle Name: Newhall

Township: 04N Range: 16W Sections: 20-22, 28

Contact Person: Courtney Montgomery

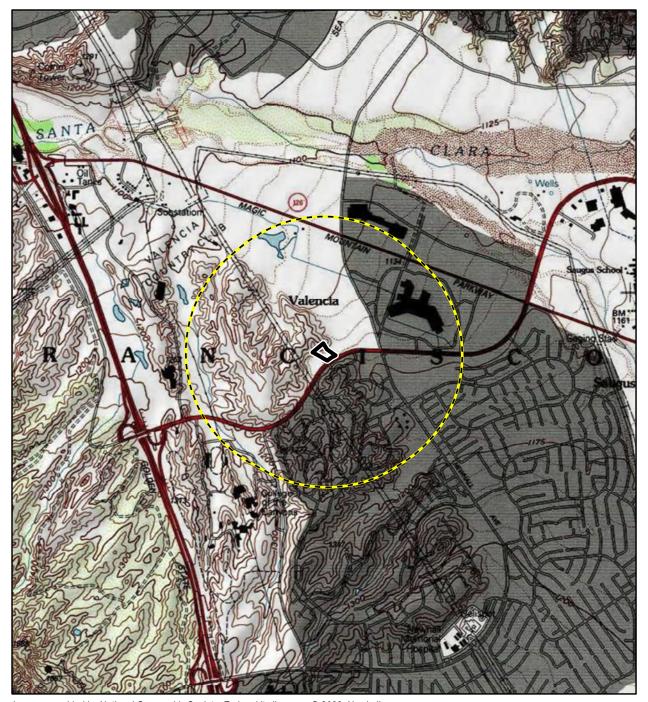
Company/Firm/Agency: Rincon Consultants, Inc.

Street Address: 250 East 1st Street, Suite 1400

City: Los Angeles Zip: 90012

Phone: (213) 788-4842 ext. 3005 Email: cmontgomery@rinconconsultants.com

Project Description: The project involves the construction of a new groundwater treatment facility for treatment of chlorine and other groundwater contaminants. The treatment facility will consist of a new chemical building, water tanks, pumps, and treatment equipment at the existing Well 205 site.



Imagery provided by National Geographic Society, Esri and its licensors © 2020. Newhall Quadrangle. T04N R16W S20-22,28. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.



Records Search Map

Rincon Consultants, Inc.



CHAIRPERSON **Laura Miranda** *Luiseño*

VICE CHAIRPERSON Reginald Pagaling Chumash

SECRETARY

Merri Lopez-Keifer

Luiseño

PARLIAMENTARIAN Russell Attebery Karuk

COMMISSIONER

Marshall McKay

Wintun

COMMISSIONER
William Mungary
Paiute/White Mountain
Apache

Commissioner [Vacant]

COMMISSIONER
Julie TumamaitStenslie
Chumash

COMMISSIONER [Vacant]

EXECUTIVE SECRETARY

Christina Snider

Pomo

NAHC HEADQUARTERS

1550 Harbor Boulevard Suite 100 West Sacramento, California 95691 (916) 373-3710 nahc@nahc.ca.gov NAHC.ca.gov

NATIVE AMERICAN HERITAGE COMMISSION

September 17, 2020

Courtney Montgomery Rincon Consultants

Via Email to: cmontgomery@rinconconsultants.com

Re: Water Well 205 Groundwater Treatment Facility Project, Los Angeles County

Dear Ms. Montgomery:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were <u>negative</u>. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: steven.quinn@nahc.ca.gov.

Sincerely,

Steven Quinn

Cultural Resources Analyst

teuer Quin

Attachment

Native American Heritage Commission Native American Contact List Los Angeles County 9/17/2020

Barbareno/ Ventureno Band of Mission Indians

Eleanor Arrellanes, P. O. Box 5687

Chumash

Ventura, CA, 93005 Phone: (805) 701 - 3246

Barbareno/ Ventureno Band of Mission Indians

Raudel Banuelos, 331 Mira Flores

Chumash

Chumash

Chumash

Chumash

Camarillo, CA, 93012 Phone: (805) 427 - 0015

Barbareno/Ventureno Band of Mission Indians

Julie Tumamait-Stenslie, Chairperson 365 North Poli Ave

Ojai, CA, 93023

Phone: (805) 646 - 6214 itumamait@hotmail.com

Barbareno/ Ventureno Band of Mission Indians

Patrick Tumamait,

992 El Camino Corto Chumash

Ojai, CA, 93023

Phone: (805) 216 - 1253

Chumash Council of Bakersfield

Julio Quair, Chairperson 729 Texas Street

Bakersfield, CA, 93307 Phone: (661) 322 - 0121 chumashtribe@sbcglobal.net

Coastal Band of the Chumash Nation

Mariza Sullivan, Chairperson P. O. Box 4464

Santa Barbara, CA, 93140 Phone: (805) 665 - 0486 cbcntribalchair@gmail.com Fernandeno Tataviam Band of Mission Indians Jairo Avila, Tribal Historic and

Cultural Preservation Officer

1019 Second Street, Suite 1 San Fernando, CA, 91340

Phone: (818) 837 - 0794 Fax: (818) 837-0796 jairo.avila@tataviam-nsn.us

Gabrieleno Band of Mission Indians - Kizh Nation

Andrew Salas, Chairperson P.O. Box 393

Covina, CA, 91723 Phone: (626) 926 - 4131

admin@gabrielenoindians.org

Gabrieleno/Tongva San Gabriel Band of Mission Indians

Anthony Morales, Chairperson P.O. Box 693

San Gabriel, CA, 91778

Phone: (626) 483 - 3564 Fax: (626) 286-1262 GTTribalcouncil@aol.com

Gabrielino /Tongva Nation

Sandonne Goad, Chairperson

106 1/2 Judge John Aiso St.,

#231

Los Angeles, CA, 90012 Phone: (951) 807 - 0479 sgoad@gabrielino-tongva.com

Gabrielino Tongva Indians of California Tribal Council

Robert Dorame, Chairperson

P.O. Box 490

Bellflower, CA, 90707 Phone: (562) 761 - 6417 Fax: (562) 761-6417 gtongva@gmail.com

Gabrielino-Tongva Tribe

Charles Alvarez,

23454 Vanowen Street West Hills, CA, 91307

Phone: (310) 403 - 6048 roadkingcharles@aol.com

Gabrielino

Gabrielino

Tataviam

Gabrieleno

Gabrieleno

Gabrielino

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resource Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Water Well 205 Groundwater Treatment Facility Project, Los Angeles County.

Native American Heritage Commission Native American Contact List Los Angeles County 9/17/2020

Northern Chumash Tribal Council

Fred Collins, Spokesperson P.O. Box 6533

Chumash

Los Osos, CA, 93412 Phone: (805) 801 - 0347 fcollins@northernchumash.org

San Fernando Band of Mission Indians

Donna Yocum, Chairperson

P.O. Box 221838 Kitanemuk Newhall, CA, 91322 Vanyume Phone: (503) 539 - 0933 Tataviam Fax: (503) 574-3308

Fax: (503) 574-3308 ddyocum@comcast.net

San Luis Obispo County Chumash Council

Mark Vigil, Chief 1030 Ritchie Road

Grover Beach, CA, 93433

Phone: (805) 481 - 2461 Fax: (805) 474-4729

Santa Ynez Band of Chumash Indians

Kenneth Kahn, Chairperson P.O. Box 517

Santa Ynez, CA, 93460 Phone: (805) 688 - 7997 Fax: (805) 686-9578

kkahn@santaynezchumash.org

Chumash

Chumash

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Barbareño/Ventureño Band of Mission Indians Raudel Banuelos 331 Mira FloresCamarillo, California 93012Via

email: Raudel.Banuelos@csuci.edu

Rincon Consultants, Inc.

180 North Ashwood Avenue Ventura, California 93003

805 644 4455 OFFICE AND FAX

info@rinconconsultants.com www.rinconconsultants.com

RE: Native American Outreach for the Well 205 Groundwater Treatment Facility Project, Santa Clarita, Los Angeles County, California

Dear Mr. Banuelos:

Rincon Consultants, Inc. (Rincon) was retained by the Santa Clarita Valley Water Agency (SCV Water) to prepare a Cultural Resources Assessment for the Well 205 Groundwater Treatment Facility Project (project) located in the City of Santa Clarita, Los Angeles County, California. This project is subject to the California Environmental Quality Act (CEQA) with SCV Water acting as the lead agency. The project involves the construction and operation of a new groundwater treatment facility for the treatment of perchlorate and other ground water contaminants, as well as paving of the project site. The existing facility would remain in place. This letter does not constitute notification under Assembly Bill 52 (AB 52) of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

As part of the process of identifying cultural resources for this project, Rincon contacted the Native American Heritage Commission (NAHC) on September 2, 2020 and requested a Sacred Lands File (SLF) search and a list of Native American tribal organizations and individuals who may have knowledge of sensitive cultural resources within or near the project site. Rincon received a response from the NAHC on September 17, 2020, which stated the SLF search had been completed with "negative" results. The NAHC suggested we contact you to discuss this project further.

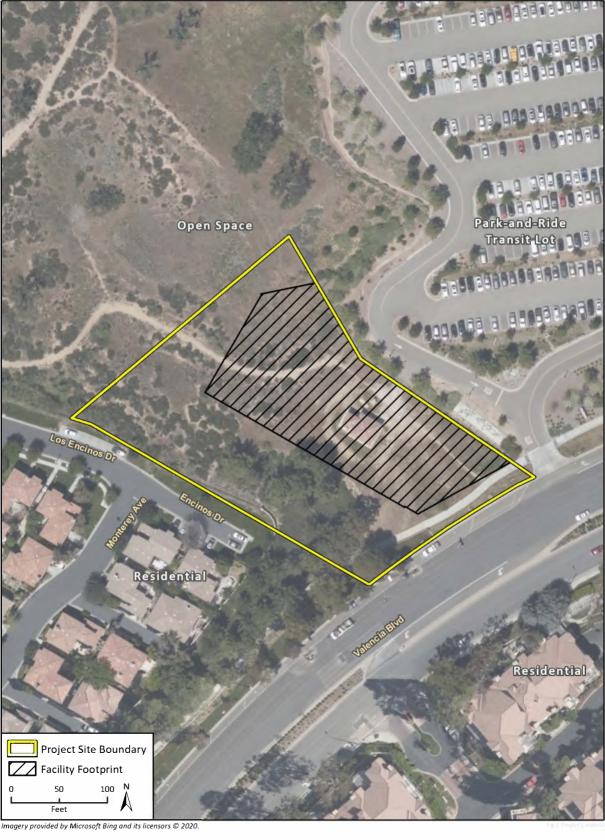
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If you have knowledge of cultural resources that may exist within or near the project site, please do not hesitate to contact me at cmontgomery@rinconconsultants.com, or by telephone at (805) 644-4455 ext. 3005. Thank you for your assistance.

Sincerely,

Rincon Consultants, Inc.

Courtney Montgomery, M.A.





Rincon Consultants, Inc. 180 North Ashwood Avenue

Ventura, California 93003

805 644 4455 OFFICE AND FAX

in fo@rinconconsultants.comwww.rinconconsultants.com

Barbareño/Ventureño Band of Mission Indians **Eleanor Arrellanes** P.O. Box 5687 Ventura, California 93005 Via email: onechumash60@yahoo.com

RE: Native American Outreach for the Well 205 Groundwater Treatment Facility Project, Santa Clarita, Los **Angeles County, California**

Dear Ms. Arrellanes:

Rincon Consultants, Inc. (Rincon) was retained by the Santa Clarita Valley Water Agency (SCV Water) to prepare a Cultural Resources Assessment for the Well 205 Groundwater Treatment Facility Project (project) located in the City of Santa Clarita, Los Angeles County, California. This project is subject to the California Environmental Quality Act (CEQA) with SCV Water acting as the lead agency. The project involves the construction and operation of a new groundwater treatment facility for the treatment of perchlorate and other ground water contaminants, as well as paving of the project site. The existing facility would remain in place. This letter does not constitute notification under Assembly Bill 52 (AB 52) of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

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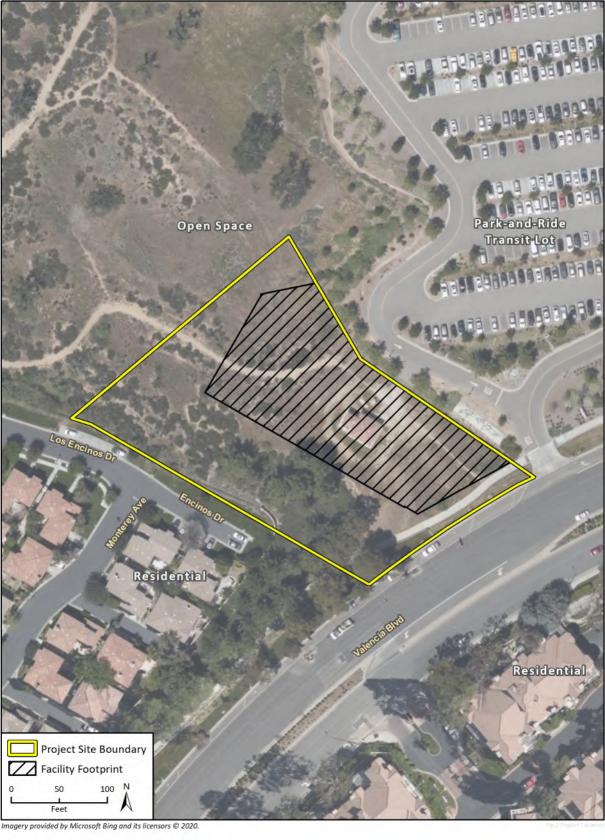
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Sincerely,

Rincon Consultants, Inc.

Courtney Montgomery, M.A.





Rincon Consultants, Inc.

180 North Ashwood Avenue Ventura, California 93003

805 644 4455 OFFICE AND FAX

info@rinconconsultants.com www.rinconconsultants.com

Barbareño/Ventureño Band of Mission Indians Julie Tumamait-Stenslie, Chairperson 365 North Poli Ave Ojai, California 93023 Via email: jtumamait@hotmail.com

RE: Native American Outreach for the Well 205 Groundwater Treatment Facility Project, Santa Clarita, Los Angeles County, California

Dear Chairperson Tumamait-Stenslie:

Rincon Consultants, Inc. (Rincon) was retained by the Santa Clarita Valley Water Agency (SCV Water) to prepare a Cultural Resources Assessment for the Well 205 Groundwater Treatment Facility Project (project) located in the City of Santa Clarita, Los Angeles County, California. This project is subject to the California Environmental Quality Act (CEQA) with SCV Water acting as the lead agency. The project involves the construction and operation of a new groundwater treatment facility for the treatment of perchlorate and other ground water contaminants, as well as paving of the project site. The existing facility would remain in place. This letter does not constitute notification under Assembly Bill 52 (AB 52) of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

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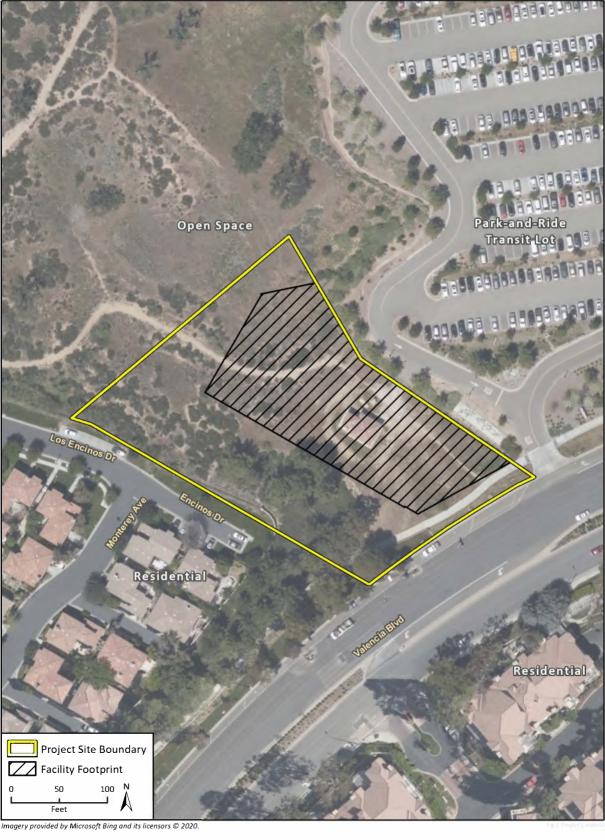
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Sincerely,

Rincon Consultants, Inc.

Courtney Montgomery, M.A.





Barbareño/Ventureño Band of Mission Indians Patrick Tumamait 992 El Camino Corto Ojai, California 93023 Via email: natchumash@yahoo.com

RE: Native American Outreach for the Well 205 Groundwater Treatment Facility Project, Santa Clarita, Los Angeles County, California

Dear Mr. Tumamait:

Rincon Consultants, Inc. (Rincon) was retained by the Santa Clarita Valley Water Agency (SCV Water) to prepare a Cultural Resources Assessment for the Well 205 Groundwater Treatment Facility Project (project) located in the City of Santa Clarita, Los Angeles County, California. This project is subject to the California Environmental Quality Act (CEQA) with SCV Water acting as the lead agency. The project involves the construction and operation of a new groundwater treatment facility for the treatment of perchlorate and other ground water contaminants, as well as paving of the project site. The existing facility would remain in place. This letter does not constitute notification under Assembly Bill 52 (AB 52) of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

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Sincerely,

Rincon Consultants, Inc.

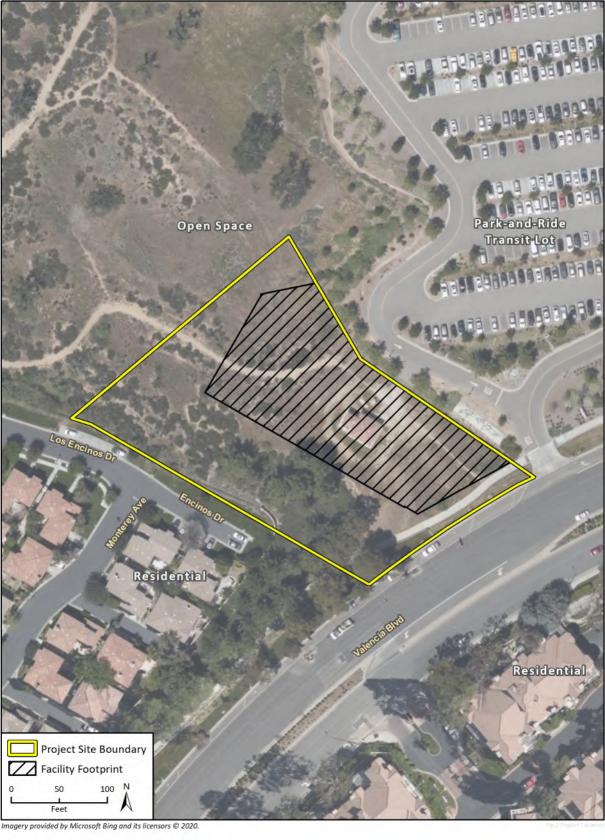
Courtney Montgomery, M.A.

Archaeologist Enclosed: Project Location Map

Rincon Consultants, Inc. 180 North Ashwood Avenue Ventura, California 93003

805 644 4455 OFFICE AND FAX

info@rinconconsultants.com www.rinconconsultants.com





Chumash Council of Bakersfield Julio Quair, Chairperson 729 Texas Street Bakersfield, California 93307 Via email: chumashtribe@sbcglobal.net

Rincon Consultants, Inc.

180 North Ashwood Avenue Ventura, California 93003

805 644 4455 OFFICE AND FAX

info@rinconconsultants.com www.rinconconsultants.com

RE: Native American Outreach for the Well 205 Groundwater Treatment Facility Project, Santa Clarita, Los Angeles County, California

Dear Chairperson Quair:

Rincon Consultants, Inc. (Rincon) was retained by the Santa Clarita Valley Water Agency (SCV Water) to prepare a Cultural Resources Assessment for the Well 205 Groundwater Treatment Facility Project (project) located in the City of Santa Clarita, Los Angeles County, California. This project is subject to the California Environmental Quality Act (CEQA) with SCV Water acting as the lead agency. The project involves the construction and operation of a new groundwater treatment facility for the treatment of perchlorate and other ground water contaminants, as well as paving of the project site. The existing facility would remain in place. This letter does not constitute notification under Assembly Bill 52 (AB 52) of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

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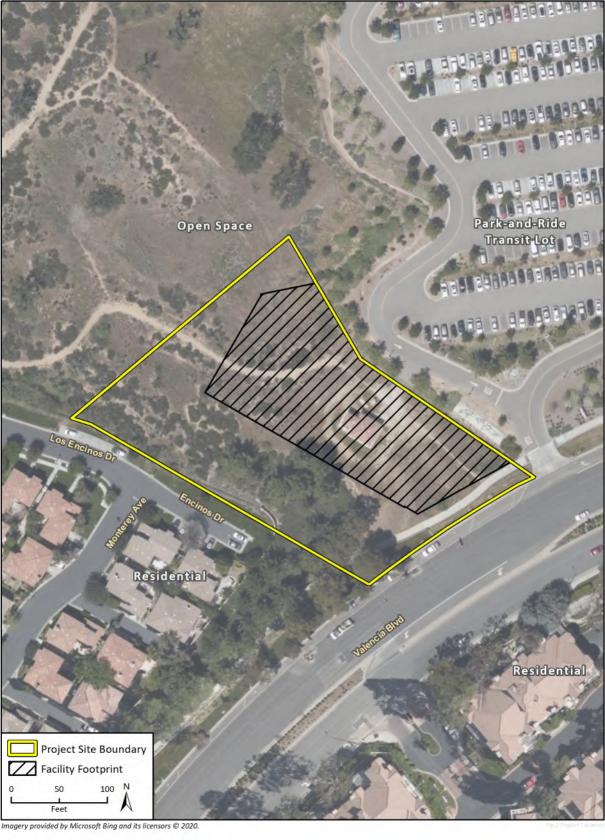
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Sincerely,

Rincon Consultants, Inc.

Courtney Montgomery, M.A.





Coastal Band of the Chumash Nation Mariza Sullivan, Chairperson P.O. Box 4464 Santa Barbara, California 93140 Via email: cbcntribalchair@gmail.com Rincon Consultants, Inc.

180 North Ashwood Avenue Ventura, California 93003

805 644 4455 OFFICE AND FAX

info@rinconconsultants.com www.rinconconsultants.com

RE: Native American Outreach for the Well 205 Groundwater Treatment Facility Project, Santa Clarita, Los Angeles County, California

Dear Chairperson Sullivan:

Rincon Consultants, Inc. (Rincon) was retained by the Santa Clarita Valley Water Agency (SCV Water) to prepare a Cultural Resources Assessment for the Well 205 Groundwater Treatment Facility Project (project) located in the City of Santa Clarita, Los Angeles County, California. This project is subject to the California Environmental Quality Act (CEQA) with SCV Water acting as the lead agency. The project involves the construction and operation of a new groundwater treatment facility for the treatment of perchlorate and other ground water contaminants, as well as paving of the project site. The existing facility would remain in place. This letter does not constitute notification under Assembly Bill 52 (AB 52) of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

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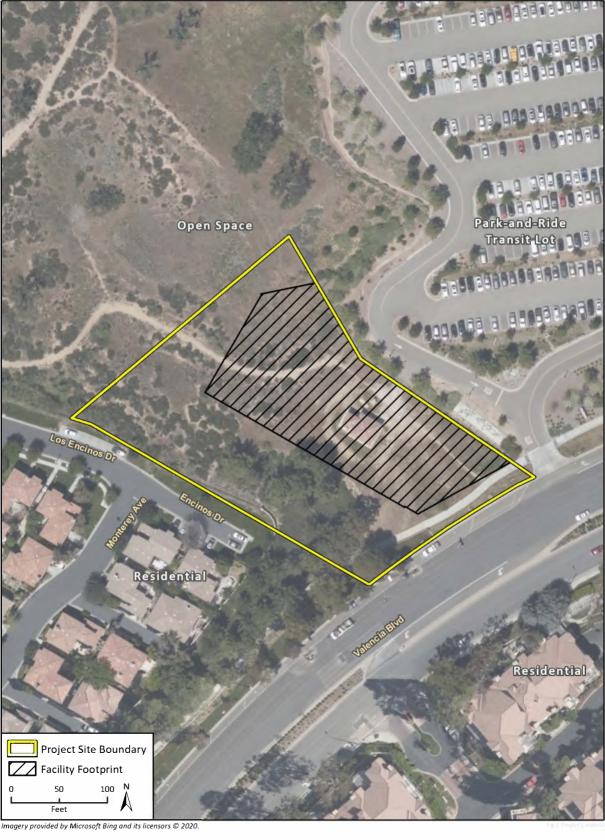
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Sincerely,

Rincon Consultants, Inc.

Courtney Montgomery, M.A.





Rincon Consultants, Inc.

180 North Ashwood Avenue Ventura, California 93003

805 644 4455 OFFICE AND FAX

info@rinconconsultants.com www.rinconconsultants.com

Northern Chumash Tribal Council Fred Collins, Spokesperson P.O. Box 6533 Los Osos, California 93412 Via email: fcollins@northernchumash.org

RE: Native American Outreach for the Well 205 Groundwater Treatment Facility Project, Santa Clarita, Los Angeles County, California

Dear Mr. Collins:

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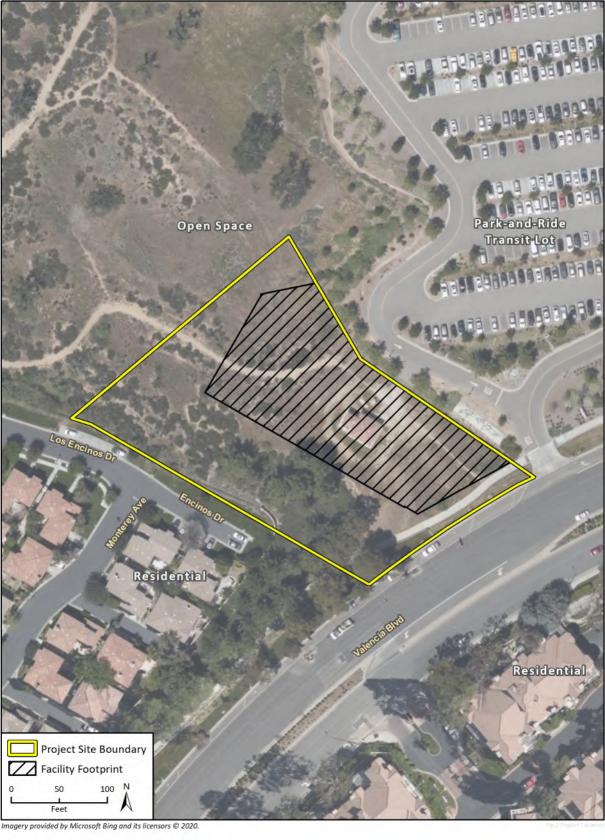
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If you have knowledge of cultural resources that may exist within or near the project site, please do not hesitate to contact me at cmontgomery@rinconconsultants.com, or by telephone at (805) 644-4455 ext. 3005. Thank you for your assistance.

Sincerely,

Rincon Consultants, Inc.

Courtney Montgomery, M.A.





San Luis Obispo County Chumash Council Mark Vigil, Chief 1030 Ritchie Road

Grover Beach, California 93433 Via email: cnam9783@gmail.com

RE: Native American Outreach for the Well 205 Groundwater Treatment Facility Project, Santa Clarita, Los Angeles County, California

Dear Chief Vigil:

Rincon Consultants, Inc. (Rincon) was retained by the Santa Clarita Valley Water Agency (SCV Water) to prepare a Cultural Resources Assessment for the Well 205 Groundwater Treatment Facility Project (project) located in the City of Santa Clarita, Los Angeles County, California. This project is subject to the California Environmental Quality Act (CEQA) with SCV Water acting as the lead agency. The project involves the construction and operation of a new groundwater treatment facility for the treatment of perchlorate and other ground water contaminants, as well as paving of the project site. The existing facility would remain in place. This letter does not constitute notification under Assembly Bill 52 (AB 52) of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

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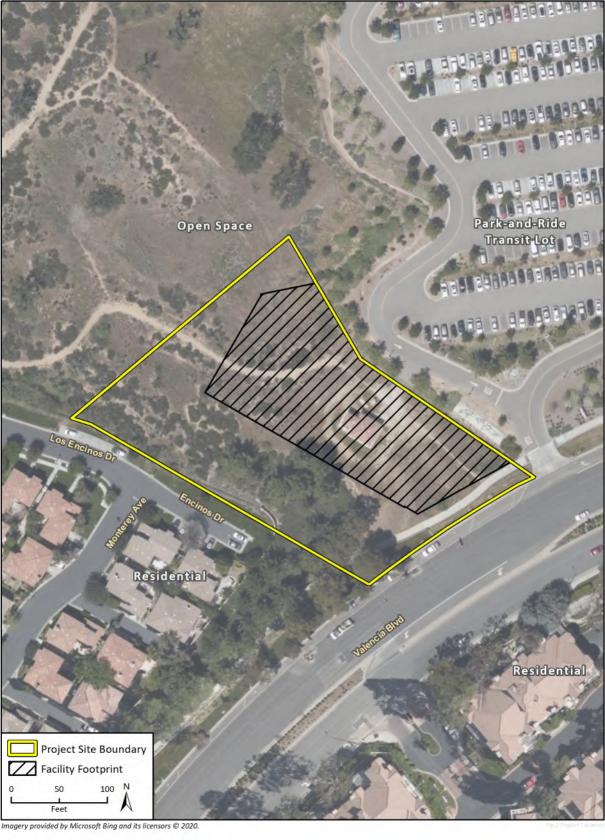
Courtney Montgomery, M.A.

Archaeologist Enclosed: Project Location Map

Rincon Consultants, Inc. 180 North Ashwood Avenue Ventura, California 93003

805 644 4455 OFFICE AND FAX

info@rinconconsultants.com www.rinconconsultants.com





Santa Ynez Band of Chumash Indians Kenneth Kahn, Chairperson P.O. Box 517 Santa Ynez, California 93460 Via email: kkahn@santaynezchumash.org

RE: Native American Outreach for the Well 205 Groundwater Treatment Facility Project, Santa Clarita, Los **Angeles County, California**

Dear Chairperson Kahn:

Rincon Consultants, Inc. (Rincon) was retained by the Santa Clarita Valley Water Agency (SCV Water) to prepare a Cultural Resources Assessment for the Well 205 Groundwater Treatment Facility Project (project) located in the City of Santa Clarita, Los Angeles County, California. This project is subject to the California Environmental Quality Act (CEQA) with SCV Water acting as the lead agency. The project involves the construction and operation of a new groundwater treatment facility for the treatment of perchlorate and other ground water contaminants, as well as paving of the project site. The existing facility would remain in place. This letter does not constitute notification under Assembly Bill 52 (AB 52) of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

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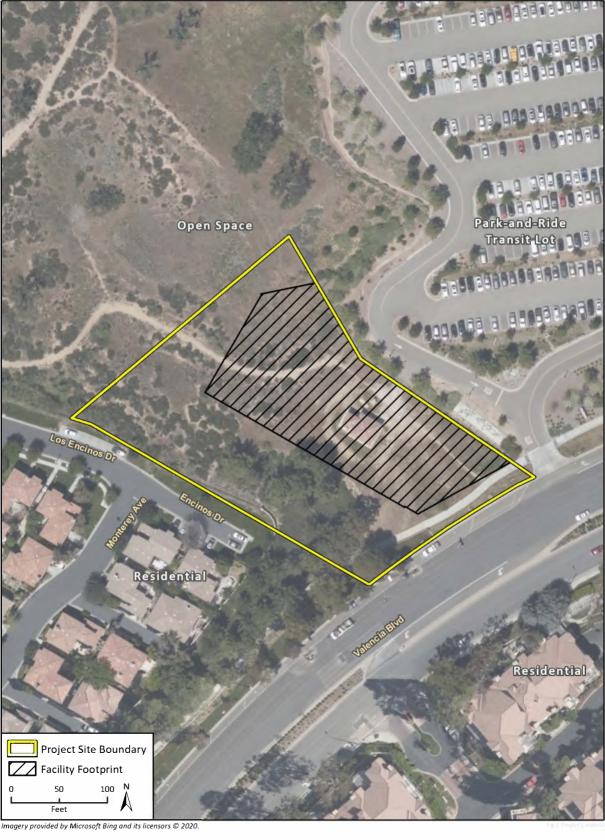
Courtney Montgomery, M.A.

Archaeologist **Enclosed: Project Location Map**

Rincon Consultants, Inc. 180 North Ashwood Avenue Ventura, California 93003

805 644 4455 OFFICE AND FAX

in fo@rinconconsultants.comwww.rinconconsultants.com





Rincon Consultants, Inc.

180 North Ashwood Avenue Ventura, California 93003

805 644 4455 OFFICE AND FAX

info@rinconconsultants.com www.rinconconsultants.com

Fernandeño Tataviam Band of Mission Indians Jairo Avila, Tribal Historic and Cultural Preservation Officer 1019 Second Street, Suite 1 San Fernando, California, 91340 Via email: jairo.avila@tataviam-nsn.us

RE: Native American Outreach for the Well 205 Groundwater Treatment Facility Project, Santa Clarita, Los Angeles County, California

Dear Tribal Historic and Cultural Preservation Officer Avila:

Rincon Consultants, Inc. (Rincon) was retained by the Santa Clarita Valley Water Agency (SCV Water) to prepare a Cultural Resources Assessment for the Well 205 Groundwater Treatment Facility Project (project) located in the City of Santa Clarita, Los Angeles County, California. This project is subject to the California Environmental Quality Act (CEQA) with SCV Water acting as the lead agency. The project involves the construction and operation of a new groundwater treatment facility for the treatment of perchlorate and other ground water contaminants, as well as paving of the project site. The existing facility would remain in place. This letter does not constitute notification under Assembly Bill 52 (AB 52) of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

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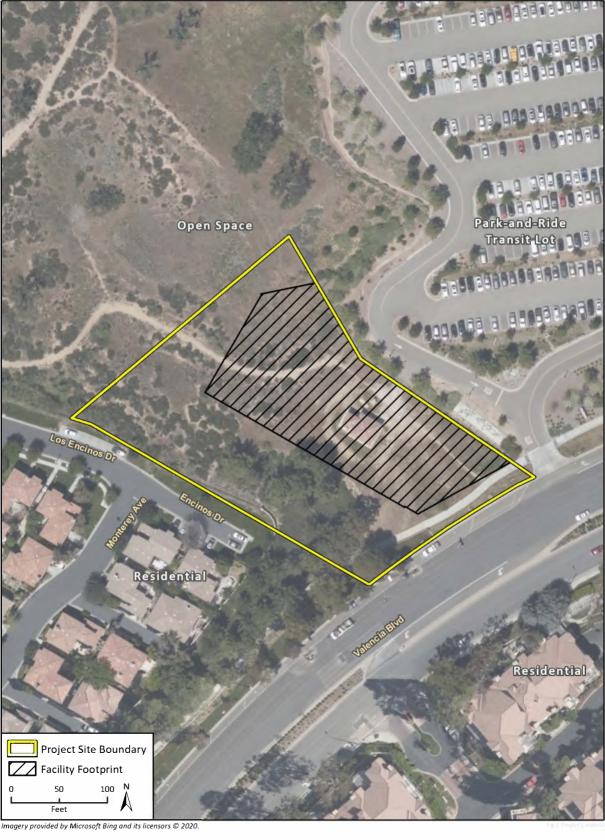
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Sincerely,

Rincon Consultants, Inc.

Courtney Montgomery, M.A.





Gabrieleño Band of Mission Indians - Kizh Nation Andrew Salas, Chairperson P.O. Box 393 Covina, California, 91723

Via email: admin@gabrielenoindians.org

RE: Native American Outreach for the Well 205 Groundwater Treatment Facility Project, Santa Clarita, Los Angeles County, California

Dear Chairperson Salas:

Rincon Consultants, Inc. (Rincon) was retained by the Santa Clarita Valley Water Agency (SCV Water) to prepare a Cultural Resources Assessment for the Well 205 Groundwater Treatment Facility Project (project) located in the City of Santa Clarita, Los Angeles County, California. This project is subject to the California Environmental Quality Act (CEQA) with SCV Water acting as the lead agency. The project involves the construction and operation of a new groundwater treatment facility for the treatment of perchlorate and other ground water contaminants, as well as paving of the project site. The existing facility would remain in place. This letter does not constitute notification under Assembly Bill 52 (AB 52) of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

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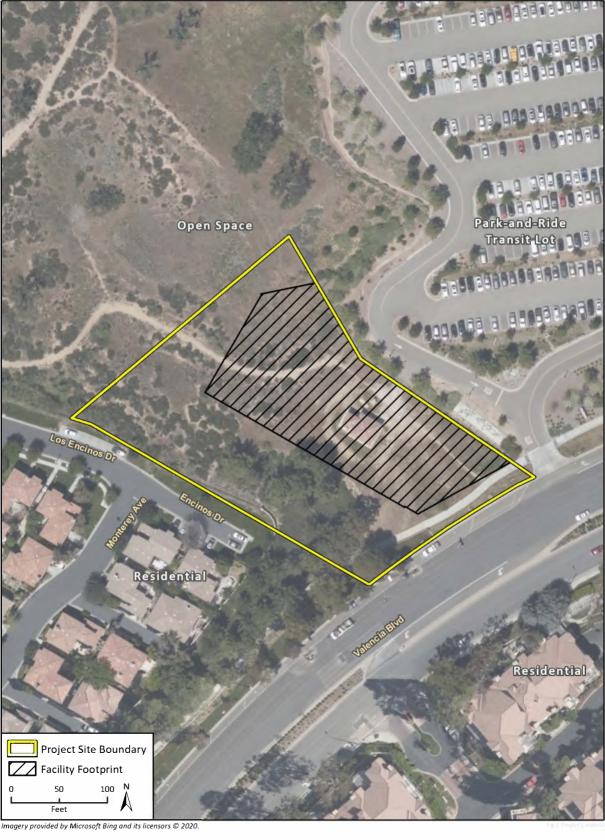
Courtney Montgomery, M.A.

Archaeologist Enclosed: Project Location Map

Rincon Consultants, Inc. 180 North Ashwood Avenue Ventura, California 93003

805 644 4455 OFFICE AND FAX

info@rinconconsultants.com www.rinconconsultants.com





Rincon Consultants, Inc.

180 North Ashwood Avenue Ventura, California 93003

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info@rinconconsultants.com www.rinconconsultants.com

Gabrieleno/Tongva San Gabriel Band of Mission Indians Anthony Morales, Chairperson P.O. Box 693 San Gabriel, California, 91778 Via email: GTTribalcouncil@aol.com

RE: Native American Outreach for the Well 205 Groundwater Treatment Facility Project, Santa Clarita, Los Angeles County, California

Dear Chairperson Morales:

Rincon Consultants, Inc. (Rincon) was retained by the Santa Clarita Valley Water Agency (SCV Water) to prepare a Cultural Resources Assessment for the Well 205 Groundwater Treatment Facility Project (project) located in the City of Santa Clarita, Los Angeles County, California. This project is subject to the California Environmental Quality Act (CEQA) with SCV Water acting as the lead agency. The project involves the construction and operation of a new groundwater treatment facility for the treatment of perchlorate and other ground water contaminants, as well as paving of the project site. The existing facility would remain in place. This letter does not constitute notification under Assembly Bill 52 (AB 52) of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

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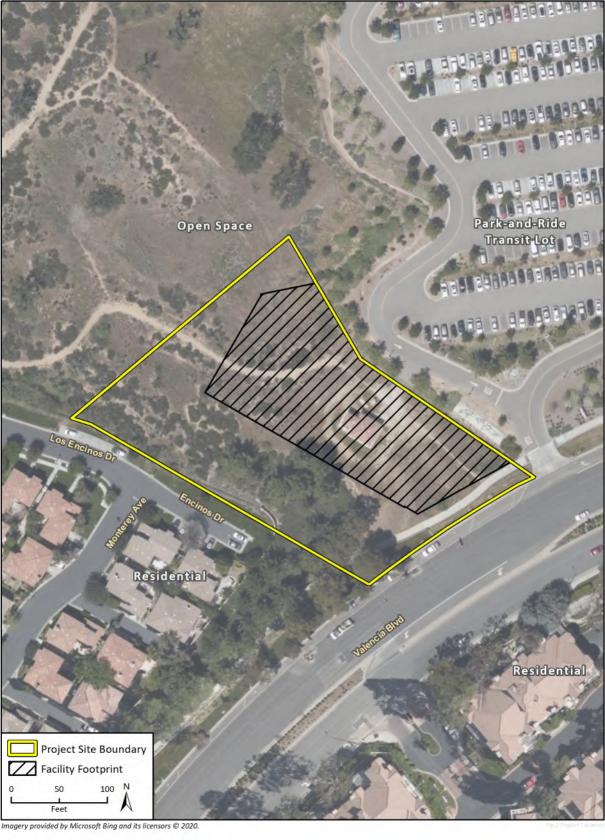
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Sincerely,

Rincon Consultants, Inc.

Courtney Montgomery, M.A.





Gabrielino /Tongva Nation Sandonne Goad, Chairperson 106 1/2 Judge John Aiso St., #231 Los Angeles, California, 90012 Via email: sgoad@gabrielino-tongva.com Rincon Consultants, Inc.

180 North Ashwood Avenue Ventura, California 93003

805 644 4455 OFFICE AND FAX

info@rinconconsultants.com www.rinconconsultants.com

RE: Native American Outreach for the Well 205 Groundwater Treatment Facility Project, Santa Clarita, Los Angeles County, California

Dear Chairperson Goad:

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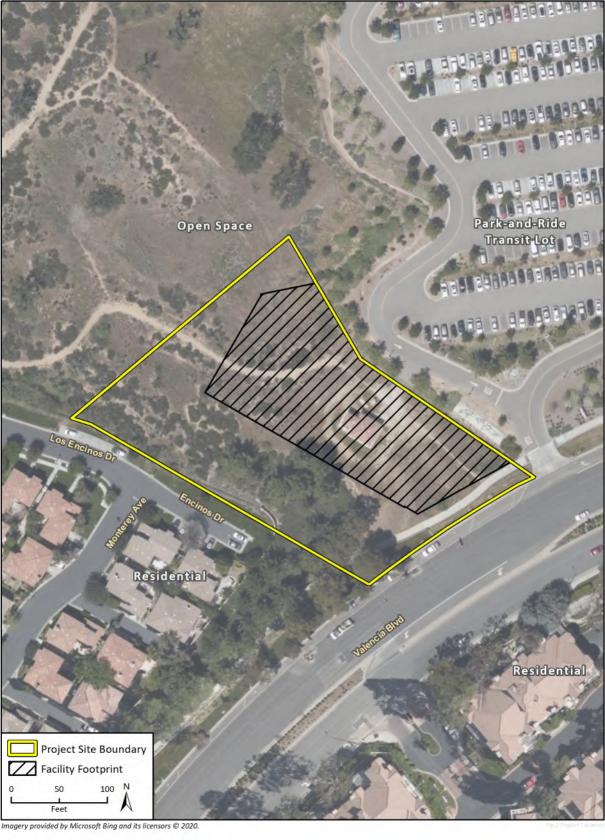
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Sincerely,

Rincon Consultants, Inc.

Courtney Montgomery, M.A.





September 21, 2020

Rincon Consultants, Inc.

180 North Ashwood Avenue Ventura, California 93003

805 644 4455 OFFICE AND FAX

info@rinconconsultants.com www.rinconconsultants.com

Gabrielino Tongva Indians of California Tribal Council Robert Dorame, Chairperson P.O. Box 490 Bellflower, California, 90707 Via email: gtongva@gmail.com

RE: Native American Outreach for the Well 205 Groundwater Treatment Facility Project, Santa Clarita, Los Angeles County, California

Dear Chairperson Dorame:

Rincon Consultants, Inc. (Rincon) was retained by the Santa Clarita Valley Water Agency (SCV Water) to prepare a Cultural Resources Assessment for the Well 205 Groundwater Treatment Facility Project (project) located in the City of Santa Clarita, Los Angeles County, California. This project is subject to the California Environmental Quality Act (CEQA) with SCV Water acting as the lead agency. The project involves the construction and operation of a new groundwater treatment facility for the treatment of perchlorate and other ground water contaminants, as well as paving of the project site. The existing facility would remain in place. This letter does not constitute notification under Assembly Bill 52 (AB 52) of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

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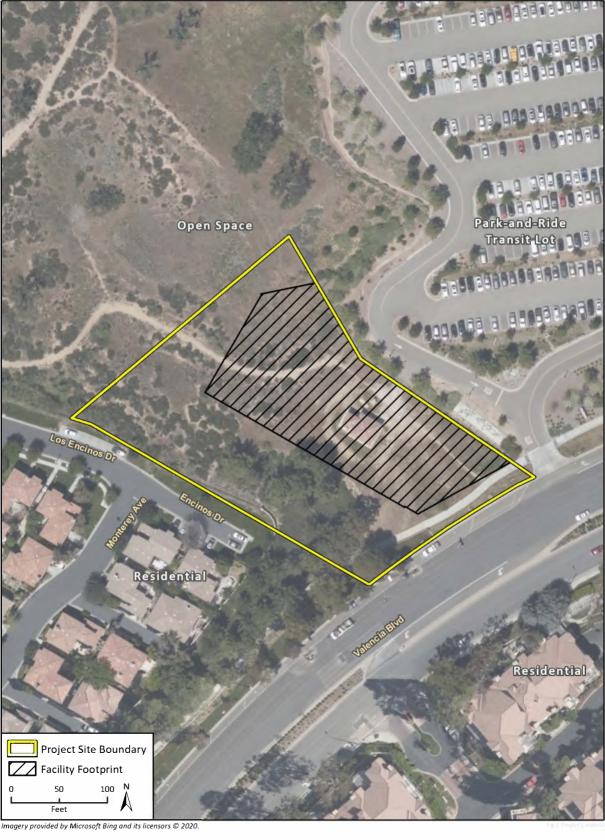
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Sincerely,

Rincon Consultants, Inc.

Courtney Montgomery, M.A.

Archaeologist Enclosed: Project Location Map





September 21, 2020

Gabrielino-Tongva Tribe Charles Alvarez 23454 Vanowen Street West Hills, California, 91307 Via email: roadkingcharles@aol.com

Angeles County, California

RE: Native American Outreach for the Well 205 Groundwater Treatment Facility Project, Santa Clarita, Los

Dear Mr. Alvarez:

Rincon Consultants, Inc. (Rincon) was retained by the Santa Clarita Valley Water Agency (SCV Water) to prepare a Cultural Resources Assessment for the Well 205 Groundwater Treatment Facility Project (project) located in the City of Santa Clarita, Los Angeles County, California. This project is subject to the California Environmental Quality Act (CEQA) with SCV Water acting as the lead agency. The project involves the construction and operation of a new groundwater treatment facility for the treatment of perchlorate and other ground water contaminants, as well as paving of the project site. The existing facility would remain in place. This letter does not constitute notification under Assembly Bill 52 (AB 52) of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

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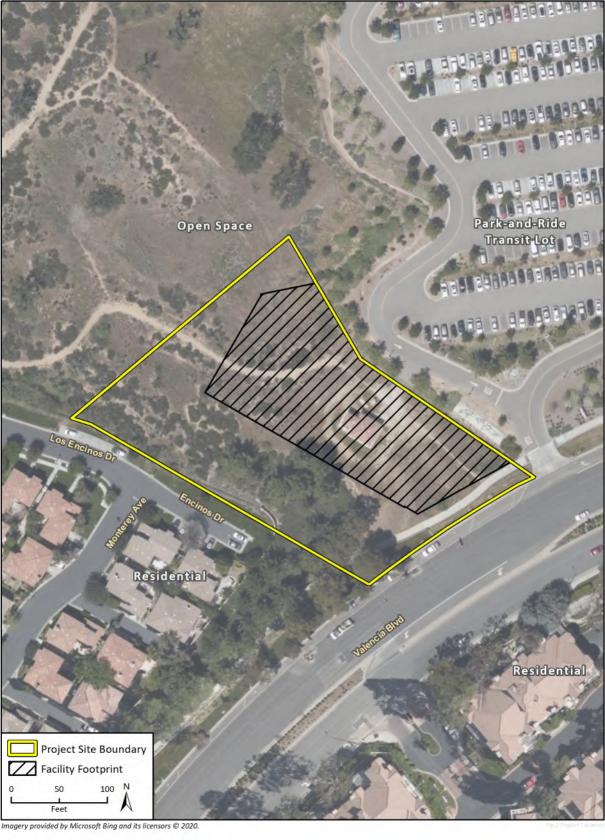
Courtney Montgomery, M.A.

Archaeologist Enclosed: Project Location Map

Rincon Consultants, Inc. 180 North Ashwood Avenue Ventura, California 93003

805 644 4455 OFFICE AND FAX

info@rinconconsultants.com www.rinconconsultants.com





September 21, 2020

San Fernando Band of Mission Indians Donna Yocum, Chairperson P.O. Box 221838 Newhall, California, 91322 Via email: ddyocum@comcast.net

RE: Native American Outreach for the Well 205 Groundwater Treatment Facility Project, Santa Clarita, Los **Angeles County, California**

Dear Chairperson Yocum:

Rincon Consultants, Inc. (Rincon) was retained by the Santa Clarita Valley Water Agency (SCV Water) to prepare a Cultural Resources Assessment for the Well 205 Groundwater Treatment Facility Project (project) located in the City of Santa Clarita, Los Angeles County, California. This project is subject to the California Environmental Quality Act (CEQA) with SCV Water acting as the lead agency. The project involves the construction and operation of a new groundwater treatment facility for the treatment of perchlorate and other ground water contaminants, as well as paving of the project site. The existing facility would remain in place. This letter does not constitute notification under Assembly Bill 52 (AB 52) of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

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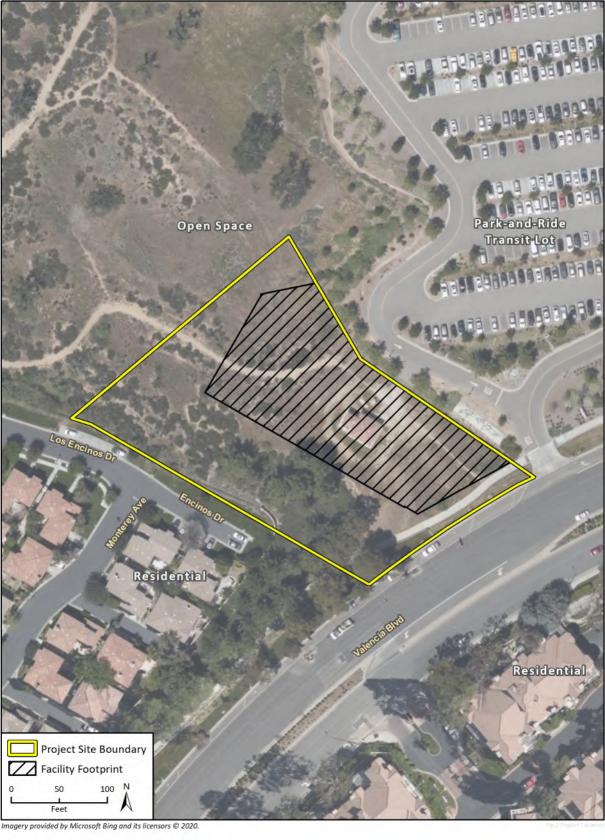
Courtney Montgomery, M.A.

Archaeologist **Enclosed: Project Location Map**

Rincon Consultants, Inc. 180 North Ashwood Avenue Ventura, California 93003

805 644 4455 OFFICE AND FAX

in fo@rinconconsultants.comwww.rinconconsultants.com



Courtney Montgomery

From: Jairo Avila <jairo.avila@tataviam-nsn.us>
Sent: Thursday, October 1, 2020 3:01 PM

To: Courtney Montgomery

Subject: [EXT] Re: Well 205 Groundwater Treatment Facility Project

CAUTION: This email originated from outside of Rincon Consultants. Be cautious before clicking on any links, or opening any attachments, until you are confident that the content is safe.

Hello Courtney,

Thank you for your email. The Tribal Historic and Cultural Preservation Department of the Fernandeño Tataviam Band of Mission Indians will provide information during the AB52 consultation process.

Respectfully,

Note: the Fernandeño Tataviam Band of Mission Indians' Tribal Administration Office is closed to nonemployees until further notice. Please contact me via phone or e-mail. Thank you

Jairo F. Avila, M.A., RPA.

Tribal Historic and Cultural Preservation Officer

Fernandeño Tataviam Band of Mission Indians

1019 Second Street, Suite 1 San Fernando, California 91340

Office: (818) 837-0794

Website: http://www.tataviam-nsn.us

From: Courtney Montgomery <cmontgomery@rinconconsultants.com>

Sent: Monday, September 21, 2020 2:21 PM **To:** Jairo Avila <jairo.avila@tataviam-nsn.us>

Subject: Well 205 Groundwater Treatment Facility Project

Hello,

Please see the attached letter regarding the Well 205 Groundwater Treatment Facility Project. Feel free to reach out to the listed contact with any information.

Courtney Montgomery, M.A.

Archaeologist

Rincon Consultants, Inc.
Environmental Scientists | Planners | Engineers
805-644-4455 x3005
559-558-5875 Direct
209-662-3807 Mobile
rinconconsultants.com



Please consider the environment before printing this email.

Courtney Montgomery

From: Fred Collins <fcollins@northernchumash.org>

Sent: Wednesday, October 7, 2020 6:42 AM

To: Courtney Montgomery

Subject: [EXT] RE: Well 205 Groundwater Treatment Facility Project

CAUTION: This email originated from outside of Rincon Consultants. Be cautious before clicking on any links, or opening any attachments, until you are confident that the content is safe.

Hello Courtney,

NCTC supports the local Tribal Governments recommendations, thank you.

Be Safe,

Fred Collins NCTC

From: Courtney Montgomery [mailto:cmontgomery@rinconconsultants.com]

Sent: Monday, September 21, 2020 2:19 PM

To: fcollins@northernchumash.org

Subject: Well 205 Groundwater Treatment Facility Project

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Courtney Montgomery, M.A. Archaeologist

Rincon Consultants, Inc.
Environmental Scientists | Planners | Engineers
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rinconconsultants.com



A Please consider the environment before printing this email.

Well 205 Groundwater Treatment Facility Project Santa Clarita, Los Angeles County, California Rincon Project No: 20-10090

Native American Contacts Consulted

Local Group/Government Contact	Rincon Outreach Efforts	Response to Outreach Efforts
Barbareno/ Ventureno Band of Mission Indians Raudel Banuelos, 331 Mira Flores Camarillo, CA, 93012 Phone: (805) 427 – 0015 Via email: Raudel.Banuelos@csuci.edu	09/21/2020: emailed outreach letter	
Barbareno/ Ventureno Band of Mission Indians Eleanor Arrellanes, P. O. Box 5687 Ventura, CA, 93005 Phone: (805) 701 - 3246	09/21/2020: emailed outreach letter	
Barbareno/Ventureno Band of Mission Indians Julie Tumamait-Stenslie, Chairperson 365 North Poli Ave Ojai, CA, 93023 Phone: (805) 646 - 6214 jtumamait@hotmail.com	09/21/2020: emailed outreach letter	
Barbareno/ Ventureno Band of Mission Indians Patrick Tumamait, 992 El Camino Corto Ojai, CA, 93023 Phone: (805) 216 – 1253 natchumash@yahoo.com	09/21/2020: emailed outreach letter	
Chumash Council of Bakersfield Julio Quair, Chairperson 729 Texas Street Bakersfield, CA, 93307 Phone: (661) 322 - 0121 chumashtribe@sbcglobal.net	09/21/2020: emailed outreach letter 9/21/2020: received the following error: There's a problem with the recipient's mailbox. Please try resending your message. If the problem continues, please contact your email admin. 9/21/2020: Called tribe for correct email address, could not leave a message. 9/23/2020: Called tribe for correct email address, could not leave a message.	
Coastal Band of the Chumash Nation Mariza Sullivan, Chairperson P. O. Box 4464 Santa Barbara, CA, 93140 Phone: (805) 665 - 0486 cbcntribalchair@gmail.com	09/21/2020: emailed outreach letter	

Local Group/Government Contact	Rincon Outreach Efforts	Response to Outreach Efforts
Northern Chumash Tribal Council Fred Collins, Spokesperson P.O. Box 6533 Los Osos, CA, 93412 Phone: (805) 801 - 0347 fcollins@northernchumash.org	09/21/2020: emailed outreach letter	10/07/2020: Mr. Collins responded via email stating that the council supports local Tribal Governments recommendations for the project
San Luis Obispo County Chumash Council Mark Vigil, Chief 1030 Ritchie Road Grover Beach, CA, 93433 Phone: (805) 481 - 2461 Fax: (805) 474-4729	09/21/2020: emailed outreach letter	
Santa Ynez Band of Chumash Indians Kenneth Kahn, Chairperson P.O. Box 517 Santa Ynez, CA, 93460 Phone: (805) 688 - 7997 Fax: (805) 686-9578 kkahn@santaynezchumash.org	09/21/2020: emailed outreach letter	
Fernandeno Tataviam Band of Mission Indians Jairo Avila, Tribal Historic and Cultural Preservation Officer 1019 Second Street, Suite 1 San Fernando, CA, 91340 Phone: (818) 837 - 0794 Fax: (818) 837-0796 jairo.avila@tataviam-nsn.us	09/21/2020: emailed outreach letter	10/01/2020: Mr. Avila responded via email stating that they will provide information through the AB 52 process.
Gabrieleno Band of Mission Indians - Kizh Nation Andrew Salas, Chairperson P.O. Box 393 Covina, CA, 91723 Phone: (626) 926 - 4131 admin@gabrielenoindians.org	09/21/2020: emailed outreach letter	
Gabrieleno/Tongva San Gabriel Band of Mission Indians Anthony Morales, Chairperson P.O. Box 693 San Gabriel, CA, 91778 Phone: (626) 483 - 3564 Fax: (626) 286-1262 GTTribalcouncil@aol.com	09/21/2020: emailed outreach letter	
Gabrielino /Tongva Nation Sandonne Goad, Chairperson 106 1/2 Judge John Aiso St., #231 Los Angeles, CA, 90012 Phone: (951) 807 - 0479 sgoad@gabrielino-tongva.com	09/21/2020: emailed outreach letter	

Local Group/Government Contact	Rincon Outreach Efforts	Response to Outreach Efforts
Gabrielino Tongva Indians of California Tribal Council Robert Dorame, Chairperson P.O. Box 490 Bellflower, CA, 90707 Phone: (562) 761 - 6417 Fax: (562) 761-6417 gtongva@gmail.com	09/21/2020: emailed outreach letter	
Gabrielino-Tongva Tribe Charles Alvarez, 23454 Vanowen Street West Hills, CA, 91307 Phone: (310) 403 - 6048 roadkingcharles@aol.com	09/21/2020: emailed outreach letter	
San Fernando Band of Mission Indians Donna Yocum, Chairperson P.O. Box 221838 Newhall, CA, 91322 Phone: (503) 539 - 0933 Fax: (503) 574-3308 ddyocum@comcast.net	09/21/2020: emailed outreach letter	

Appendix D

Energy Calculation Worksheets

Well 205 Groundwater Treatment Facility Project

Last Updated: February 16, 2022

Compression-Ignition Engine Brake-Specific Fuel Consumption (BSFC) Factors [1]:

HP: 0 to 100 0.05	8	HP: Greater than 100	0.0529
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Values above are expressed in gallons per horsepower-hour/BSFC.

CONSTRUCTION EQUIPMENT						
		Hours per		Load	Construction	Fuel Used
Construction Equipment	#	Day	Horsepower	Factor	Phase	(gallons)
Graders	1	8	187	0.41	Site Prep	324.22
Tractors/Loaders/Backhoes	1	8	97	0.37	Site Prep	168.72
Rubber Tired Dozer	1	6	247	0.40	Grading	626.70
Tractors/Loaders/Backhoes	1	7	97	0.37	Grading	295.27
Cement and Mortar Mixers	4	6	9	0.56	Paving	106.62
Pavers	1	7	130	0.42	Paving	303.04
Rollers	1	7	80	0.38	Paving	187.58
Tractors/Loaders/Backhoes	1	7	97	0.37	Paving	221.45
Air Compressors	1	6	78	0.48	Arch Coating	1,056.06
Cranes	1	4	231	0.29	Building	3,116.10
Forklifts	2	6	89	0.20	Building	2,761.45
Tractors/Loaders/Backhoes	2	8	97	0.37	Building	7,423.85
				•	Total Fuel Used	16,591.05

otal Fuel Used 16,591.05

(Gallons)

Construction Phase	Days of Operation
Site Prep Phase	10
Grading Phase	20
Building Construction Phase	220
Paving Phase	15
Architectural Coating Phase	80
Total Days	345

WORKER TRIPS						
Constuction Phase	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)		
Site Prep Phase	24.0	5	14.7	30.63		
Grading Phase	24.0	5	14.7	61.25		
Building Construction Phase	24.0	14	14.7	1886.50		
Paving Phase	24.0	18	14.7	165.38		
Architectural Coating Phase	24.0	3	14.7	147.00		
			Fuel	2,290.75		

	HAULING ANI	O VENDOR T	RIPS	
Trip Class	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
	HAULI	NG TRIPS		
Site Prep Phase	7.4	0	20.0	0.00
Grading Phase	7.4	38	20.0	102.70
Building Construction Phase	7.4	0	20.0	0.00
Paving Phase	7.4	0	20.0	0.00
Architectural Coating Phase	7.4	0	20.0	0.00
			Fuel	102.70
	VEND	OR TRIPS		
Site Prep Phase	7.4	0	6.9	0.00
Grading Phase	7.4	0	6.9	0.00
Building Construction Phase	7.4	5	6.9	1025.68
Paving Phase	7.4	0	6.9	0.00
Architectural Coating Phase	7.4	0	6.9	0.00
_			Fuel	1,025.68

Total Gasoline Consumption (gallons)	2,290.75
Total Diesel Consumption (gallons)	17,719.43

Sources:

- [1] United States Environmental Protection Agency. 2018. Exhaust and Crankcase Emission Factors for Nonroad Compression-Ignition Engines in MOVES2014b . July 2018. Available at: https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100UXEN.pdf.
- [2] United States Department of Transportation, Bureau of Transportation Statistics. 2018. *National Transportation Statistics 2018*. Available at: https://www.bts.gov/sites/bts.dot.gov/files/docs/browse-statistical-products-and-data/national-transportation-statistics/223001/ntsentire2018q4.pdf.

Well 205 Groundwater Treatment Facility Project

Last Updated: February 16, 2022

Populate one of the following tables (Leave the other blank):

Annual VMT	<u>OR</u>	Daily Vehicle Trips
Annual VMT: 6,054		Daily Vehicle Trips:
		Average Trip
		Distance:

Fleet Class	Fleet Mix	Fuel Economy (M	IPG) [1]
Light Duty Auto (LDA)	0.000000	Passenger Vehicles	24.4
Light Duty Truck 1 (LDT1)	0.960000	Light-Med Duty Trucks	17.9
Light Duty Truck 2 (LDT2)	0.000000	Heavy Trucks/Other	7.5
Medium Duty Vehicle (MDV)	0.040000	Motorcycles	44
Light Heavy Duty 1 (LHD1)	0.000000		
Light Heavy Duty 2 (LHD2)	0.000000		
Medium Heavy Duty (MHD)	0.000000		
Heavy Heavy Duty (HHD)	0.000000		
Other Bus (OBUS)	0.000000		
Urban Bus (UBUS)	0.000000		
Motorcycle (MCY)	0.000000		
School Bus (SBUS)	0.000000		
Motorhome (MH)	0.00000		

Fleet Mix

					Fuel
			Annual VMT:		Consumption
Vehicle Type	Percent	Fuel Type	VMT	Vehicle Trips: VMT	(Gallons)
Passenger Vehicles	0.00%	Gasoline	0	0.00	0.00
Light-Medium Duty Trucks	100.00%	Gasoline	6054	0.00	338.21
Heavy Trucks/Other	0.00%	Diesel	0	0.00	0.00
Motorcycle	0.00%	Gasoline	0	0.00	0.00

Total Gasoline Consumption (gallons)	0.00
Total Diesel Consumption (gallons)	338.21

Appendix E

Noise Data and Analyses

Freq Weight: A
Time Weight: SLOW
Level Range: 40-100
Max dB: 77.1 - 2020/09/22 12:21:25
Level Range: 40-100
SEL: 95.0
Leq: 65.5

Leq:	65. 5	
No.s	Date Time	(dB)
NO. 5 - 1 2 3 4 5 6 7 8 9 0 1 1 2 3 2 2 2 2 2 2 2 2 2 2 2 2 2 3 3 3 3	2020/09/22 12: 08: 38 2020/09/22 12: 08: 41 2020/09/22 12: 08: 47 2020/09/22 12: 08: 50 2020/09/22 12: 08: 53 2020/09/22 12: 08: 59 2020/09/22 12: 09: 59 2020/09/22 12: 09: 05 2020/09/22 12: 09: 08 2020/09/22 12: 09: 08 2020/09/22 12: 09: 01 2020/09/22 12: 09: 01 2020/09/22 12: 09: 11 2020/09/22 12: 09: 20 2020/09/22 12: 09: 17 2020/09/22 12: 09: 20 2020/09/22 12: 09: 20 2020/09/22 12: 09: 20 2020/09/22 12: 09: 32 2020/09/22 12: 09: 32 2020/09/22 12: 09: 32 2020/09/22 12: 09: 35 2020/09/22 12: 09: 35 2020/09/22 12: 09: 35 2020/09/22 12: 09: 41 2020/09/22 12: 09: 41 2020/09/22 12: 09: 50 2020/09/22 12: 09: 50 2020/09/22 12: 09: 50 2020/09/22 12: 09: 50 2020/09/22 12: 09: 50 2020/09/22 12: 09: 50 2020/09/22 12: 09: 50 2020/09/22 12: 10: 05 2020/09/22 12: 10: 05 2020/09/22 12: 10: 05 2020/09/22 12: 10: 05 2020/09/22 12: 10: 11 2020/09/22 12: 10: 11 2020/09/22 12: 10: 38 2020/09/22 12: 10: 38 2020/09/22 12: 10: 38 2020/09/22 12: 10: 38 2020/09/22 12: 10: 50 2020/09/22 12: 10: 50 2020/09/22 12: 10: 50 2020/09/22 12: 10: 53 2020/09/22 12: 10: 35 2020/09/22 12: 10: 53 2020/09/22 12: 10: 53 2020/09/22 12: 10: 53 2020/09/22 12: 10: 53 2020/09/22 12: 10: 53 2020/09/22 12: 10: 55 2020/09/22 12: 10: 55 2020/09/22 12: 10: 55 2020/09/22 12: 10: 55 2020/09/22 12: 10: 55 2020/09/22 12: 10: 55 2020/09/22 12: 10: 55 2020/09/22 12: 10: 55 2020/09/22 12: 10: 55 2020/09/22 12: 10: 55 2020/09/22 12: 10: 55 2020/09/22 12: 10: 55 2020/09/22 12: 10: 55 2020/09/22 12: 10: 55 2020/09/22 12: 10: 55 2020/09/22 12: 11: 15 2020/09/22 12: 11: 55 2020/09/22 12: 11: 55 2020/09/22 12: 11: 55 2020/09/22 12: 11: 55 2020/09/22 12: 11: 55 2020/09/22 12: 11: 55 2020/09/22 12: 11: 55 2020/09/22 12: 11: 55 2020/09/22 12: 11: 55 2020/09/22 12: 11: 55 2020/09/22 12: 11: 55 2020/09/22 12: 11: 55 2020/09/22 12: 11: 55 2020/09/22 12: 11: 55 2020/09/22 12: 11: 55 2020/09/22 12: 11: 55 2020/09/22 12: 12: 22: 25 2020/09/22 12: 12: 23 2020/09/22 12: 12: 25 2020/09/22 12: 12: 25 2020/09/22 12: 12: 25 2020/09/22 12: 12: 25 2020/09/22 12: 12: 25 2020/09/22 12: 12:	63. 4 66. 2 67. 4 67. 2 62. 0 63. 4 61. 7 60. 1 57. 7 58. 4 62. 5 62. 7 63. 9 63. 5 61. 6 61. 0 61. 0 61. 0 61. 0 70. 2 68. 2 69. 4 67. 3 67. 7 69. 5 73. 6 66. 0 66. 5 66. 0 66. 5 66. 0 66. 5 67. 0 71. 2 66. 4 64. 9 65. 0 65. 4 66. 7 66. 1 63. 1 63. 1 63. 1 64. 7 65. 7 66. 1 63. 1 64. 7 65. 7 66. 1 65. 9 65. 0 65. 4 66. 7 66. 1 66. 1 67. 7 69. 0 70. 0 68. 7 69. 0 71. 0 69. 0 71. 0 60. 0 61. 0 61. 0 61. 0 62. 7 63. 0 64. 2 64. 3 64. 5 65. 3 66. 0

86	2020/09/22	12: 12: 53	68. 7
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88 89	2020/09/22 2020/09/22	12: 12: 59 12: 13: 02	66. 5 63. 7
90	2020/09/22	12: 13: 05	65.3
91 92	2020/09/22 2020/09/22	12: 13: 08 12: 13: 11	63. 0 60. 5
93	2020/09/22	12: 13: 14	63.0
94 95	2020/09/22 2020/09/22	12: 13: 17 12: 13: 20	62. 8 59. 3
96	2020/09/22	12: 13: 23	60. 1
97 98	2020/09/22 2020/09/22	12: 13: 26 12: 13: 29	55. 9 57. 0
99	2020/09/22	12: 13: 32	60. 2
100 101	2020/09/22 2020/09/22	12: 13: 35 12: 13: 38	60. 3 59. 2
102	2020/09/22	12: 13: 41	59.0
103 104	2020/09/22 2020/09/22	12: 13: 44 12: 13: 47	57. 0 59. 1
105	2020/09/22	12: 13: 50	64.0
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118	2020/09/22	12: 14: 29	70. 2
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128	2020/09/22	12: 14: 59	65. 4
129 130	2020/09/22 2020/09/22	12: 15: 02 12: 15: 05	64. 9 62. 9
131	2020/09/22	12: 15: 08	64. 2
132 133	2020/09/22 2020/09/22	12: 15: 11 12: 15: 14	67. 4 67. 7
134	2020/09/22	12: 15: 17	65. 1
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193	2020/09/22 2020/09/22	12: 18: 14 12: 18: 17	59. 4 66. 0
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259 260	2020/09/22 2020/09/22	12: 21: 32 12: 21: 35	64. 1 62. 6
261	2020/09/22	12: 21: 38	64.3
262 263	2020/09/22 2020/09/22	12: 21: 41 12: 21: 44	65. 8 68. 1
263 264	2020/09/22	12: 21: 44	66. 9
265 266	2020/09/22 2020/09/22	12: 21: 50 12: 21: 53	65. 1 62. 2
266 267	2020/09/22	12: 21: 56	64.6
268	2020/09/22 2020/09/22	12: 21: 59 12: 22: 02	64. 4 64. 3
269 270	2020/09/22	12: 22: 02 12: 22: 05	66. 3
271	2020/09/22	12: 22: 08	60. 1
272 273	2020/09/22 2020/09/22	12: 22: 14	62. 6 61. 0
274 275	2020/09/22	12: 22: 17	59. 7
275 276	2020/09/22 2020/09/22	12: 22: 23	62. 8 62. 7
277	2020/09/22	12: 22: 26	65.0
278 279	2020/09/22 2020/09/22	12: 22: 32	64. 6 62. 5
280	2020/09/22	12: 22: 35	57. 3 59. 9
281 282	2020/09/22 2020/09/22	12: 22: 41	56. 9
283	2020/09/22	12: 22: 44	53. 8

2020/09/22	12: 22: 47	56. 4
2020/09/22	12: 22: 50	58. 6
2020/09/22	12: 22: 53	57. 6
2020/09/22	12: 22: 56	55. 6
2020/09/22	12: 22: 59	58. 7
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2020/09/22	12: 23: 05	61. 7
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2020/09/22	12: 23: 17	69. 4
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2020/09/22	12: 23: 23	66. 9
2020/09/22	12: 23: 26	64. 1
2020/09/22	12: 23: 29	66. 5
2020/09/22	12: 23: 32	66. 2
2020/09/22	12: 23: 35	63.0
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Freq Weight: A
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Level Range: 40-100
Max dB: 62.6 - 2020/09/22 12:43:12
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SEL: 81.4
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86	2020/09/22	12: 34: 16	55.5
87	2020/09/22	12: 34: 19	53. 1
88	2020/09/22		51. 4
89	2020/09/22	12: 34: 25	49. 2
90	2020/09/22	12: 34: 28	48. 8
91	2020/09/22	12: 34: 31	48. 7
92	2020/09/22	12: 34: 34	49. 4
93	2020/09/22	12: 34: 37	51. 1
94	2020/09/22	12: 34: 40	51. 7
95	2020/09/22	12: 34: 43	48. 0
96	2020/09/22	12: 34: 46	46. 2
97	2020/09/22	12: 34: 49	49. 5
98	2020/09/22	12: 34: 52	53. 8
99	2020/09/22	12: 34: 55	54. 7
100	2020/09/22	12: 34: 58	52. 2
101	2020/09/22	12: 35: 01	50. 2
102	2020/09/22	12: 35: 04	51. 4
103	2020/09/22	12: 35: 07	51.4
104	2020/09/22	12: 35: 10	50. 3
105	2020/09/22	12: 35: 13	49. 3
106	2020/09/22	12: 35: 16	48. 0
107	2020/09/22	12: 35: 19	47. 7
108	2020/09/22	12: 35: 22	50. 3
109	2020/09/22	12: 35: 25	49. 7
110	2020/09/22	12: 35: 28	46. 8
111	2020/09/22	12: 35: 31	46. 7
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113	2020/09/22	12: 35: 37	47. 7
114	2020/09/22	12: 35: 40	49. 3
115	2020/09/22	12: 35: 43	51. 0
116	2020/09/22	12: 35: 46	48. 3
117	2020/09/22	12: 35: 49	46. 3
118	2020/09/22	12: 35: 52	47. 8
119	2020/09/22	12: 35: 55	49. 2
120	2020/09/22	12: 35: 58	49. 1
121	2020/09/22	12: 36: 01	49. 6
122	2020/09/22	12: 36: 04	50.8
123	2020/09/22	12: 36: 07	50. 1
124	2020/09/22	12: 36: 10	49. 8
125	2020/09/22	12: 36: 13	50. 6
126	2020/09/22	12: 36: 16	51. 4
127	2020/09/22	12: 36: 19	53.6
128	2020/09/22	12: 36: 22	54. 7
129	2020/09/22	12: 36: 25	54. 6
130	2020/09/22	12: 36: 28	54.4
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132	2020/09/22	12: 36: 34	53. 0
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134	2020/09/22	12: 36: 43	54. 1
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137		12: 36: 49	52. 3
138	2020/09/22	12: 36: 52	52.5
139	2020/09/22	12: 36: 55	51. 7
140	2020/09/22	12: 36: 58	51. 6
141	2020/09/22	12: 37: 01	51. 4
142	2020/09/22	12: 37: 04	49. 9
143	2020/09/22	12: 37: 07	52. 6
144	2020/09/22	12: 37: 10	52. 2
145	2020/09/22	12: 37: 13	52. 8
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147	2020/09/22	12: 37: 19	53. 3
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154	2020/09/22	12: 37: 40	46.8
155	2020/09/22	12: 37: 43	48. 9
156	2020/09/22	12: 37: 46	50. 6
157	2020/09/22	12: 37: 49	50. 7
158	2020/09/22	12: 37: 55	51. 0
159	2020/09/22		50. 8
160	2020/09/22	12: 37: 58	49. 8
161	2020/09/22	12: 38: 01	49. 0
162	2020/09/22	12: 38: 04	48.8
163	2020/09/22	12: 38: 07	49. 9
164	2020/09/22	12: 38: 10	50. 3
165	2020/09/22	12: 38: 13	49. 1
166	2020/09/22	12: 38: 16	49. 5
167	2020/09/22	12: 38: 19	48. 3
168	2020/09/22	12: 38: 22	47. 9
169	2020/09/22		49. 2
170	2020/09/22	12: 38: 28	48. 3
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174	2020/09/22	12: 38: 40	52. 5
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177	2020/09/22	12: 38: 49	54. 9
178	2020/09/22	12: 38: 52	54.6
179	2020/09/22	12: 38: 55	55. 5
180	2020/09/22	12: 38: 58	53. 2
181	2020/09/22	12: 39: 01	51. 1
182	2020/09/22	12: 39: 04	51. 3
183	2020/09/22	12: 39: 07	50. 4
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217	2020/09/22	12: 40: 49	55.3
218 219	2020/09/22 2020/09/22	12: 40: 52 12: 40: 55	55. 0 54. 3
220	2020/09/22	12: 40: 58	53.6
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263	2020/09/22	12: 43: 07	59. 5
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269	2020/09/22	12: 43: 25	49. 6
270 271	2020/09/22 2020/09/22	12: 43: 28 12: 43: 31	54. 7 54. 3
272	2020/09/22	12: 43: 34	51. 1
273 274	2020/09/22 2020/09/22	12: 43: 37 12: 43: 40	50. 6 50. 9
275	2020/09/22	12: 43: 43	51. 1
276 277	2020/09/22 2020/09/22	12: 43: 46 12: 43: 49	50. 4 50. 6
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281	2020/09/22	12: 44: 01	50. 3
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2020/09/22	12: 44: 34	50.8
2020/09/22	12: 44: 37	50. 6
2020/09/22	12: 44: 40	49. 5
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Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 10/2/2020 Case Description: Well 205

---- Receptor #1 ----

Baselines (dBA)

Description Daytime Evening Land Use Night Residential Residential 75

75 75

Equipment

		Spec	Actual	Receptor	r Estimated
	Impact	Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%) (dBA)	(dBA)	(feet)	(dBA)
Grader	No	40	85	15	0 0
Front End Loader	No	40	•	79.1 15	0 0

Calculated (dBA)

Equipment *Lmax Leq Grader 75.5 71.5 69.6 Front End Loader 65.6 Total 75.5 72.5

^{*}Calculated Lmax is the Loudest value.

Appendix F

AB 52 Results

From: Jairo Avila <jairo.avila@tataviam-nsn.us>

Sent: Tuesday, March 2, 2021 3:50 PM

To: Rick Vasilopulos <rvasilopulos@scvwa.org>

Subject: Re: Well 205 Project Geotechnical Investigation

CAUTION - EXTERNAL SENDER

Hello Rick,

If the Lead Agency agrees with the revised measures provided, then we can agree conclude consultation for this project. No additional consultation pursuant to CEQA is required unless there is an unanticipated discovery of cultural resources during project implementation. I look forward to reviewing the final IS/MND once available.

Thanks,

Jairo F. Avila, M.A., RPA.

Tribal Historic and Cultural Preservation Officer
Cultural Resources Management Division

Tribal Historic and Cultural Preservation Department

Fernandeño Tataviam Band of Mission Indians

1019 Second Street, Suite 1 San Fernando, California 91340

Office: (818) 837-0794

Website: http://www.tataviam-nsn.us

From: Rick Vasilopulos < rvasilopulos@scvwa.org>

Sent: Tuesday, March 2, 2021 12:29 PM
To: Jairo Avila <jairo.avila@tataviam-nsn.us>

Subject: RE: Well 205 Project Geotechnical Investigation

[CAUTION] EXTERNAL Email. Exercise caution.

Thanks Jairo,

That change will be fine. I'll have our consultant implement the change and we will send you the finalized IS/MND once completed.

Do we need to have a phone/zoom meeting about any of this, or can we consider our formal consultation finalized with these changes?

Let me know if you think we need to meet, otherwise please send me an email confirming that we have consulted with you and that all is well.

Thanks.

Rick Vasilopulos Water Resources Planner Santa Clarita Valley Water Agency 26501 Summit Circle Santa Clarita, CA 91350

Office: (661) 705-7912 rvasilopulos@scvwa.org

From: Jairo Avila < jairo.avila@tataviam-nsn.us>

Sent: Tuesday, March 2, 2021 12:25 PM

To: Rick Vasilopulos <rvasilopulos@scvwa.org>

Subject: Re: Well 205 Project Geotechnical Investigation

CAUTION - EXTERNAL SENDER

Hello Rick,

Our team has reviewed the MM language provided and request that the Fernandeño Tataviam Band of Mission Indians be directly listed in TCR-1. If more than one tribe requested and participated in AB52 Consultation for this Project, then list each Tribe or included the modified TCR-1 below (see changes in red).

TCR-1 Native American Monitoring

The Santa Clarita Valley Water Agency shall retain a professional Native American monitor procured by the Fernandeño Tataviam Band of Mission Indians or Native American Tribe participating in AB 52 consultation to observe ground-disturbing activities up to 5-feet below the surface of native intact soil, unless there is evidence to suggest cultural resources extend below the specified depth. Ground disturbing activities include but are not limited to tree/shrub removal and planting, clearing/grubbing, grading, excavation, trenching, drainage and irrigation removal and installation, and archaeological work. If cultural resources are encountered, the Native American monitor will have the authority to request ground disturbing activities cease within 50 feet of the discovery to assess and document potential finds in real time.

After approximately 50 percent of initial ground-disturbing activities have been completed, the Native American monitor shall discuss with the Santa Clarita Valley Water Agency and the Santa Clarita Valley Water Agency's archaeologist the potential to reduce the level of Native American monitoring to "spot monitoring" or even to cease Native American monitoring based on the condition and types of soil observed during monitoring and the monitoring results to date.

The CRM Division find TCR-2 and TCR-3 acceptable for this Project. Let me know if you or your consultants have any questions.

Thank you,

Jairo F. Avila, M.A., RPA.

Tribal Historic and Cultural Preservation Officer Cultural Resources Management Division

Tribal Historic and Cultural Preservation Department

Fernandeño Tataviam Band of Mission Indians

1019 Second Street, Suite 1 San Fernando, California 91340

Office: (818) 837-0794

Website: http://www.tataviam-nsn.us

From: Rick Vasilopulos < rvasilopulos@scvwa.org Sent: Thursday, February 25, 2021 2:31 PM

To: Jairo Avila jairo.avila@tataviam-nsn.us

Subject: RE: Well 205 Project Geotechnical Investigation

[CAUTION] EXTERNAL Email. Exercise caution.

Good Afternoon Jairo,

Below is our language that we proposed to use in the Cultural Resources section of our Mitigation Measures.

TCR-1 Native American Monitoring

The Santa Clarita Valley Water Agency shall retain a professional Native American monitor associated with any Native American tribal organization that requested and participated in the AB 52 consultation process to observe ground-disturbing activities up to 5-feet below the surface of native intact soil, unless there is evidence to suggest cultural resources extend below the specified depth. Ground disturbing activities include but are not limited to tree/shrub removal and planting, clearing/grubbing, grading, excavation, trenching, drainage and irrigation removal and installation, and archaeological work. If cultural resources are encountered, the Native American monitor will have the authority to request ground disturbing activities cease within 50 feet of the discovery to assess and document potential finds in real time.

After approximately 50 percent of initial ground-disturbing activities have been completed, the Native American monitor shall discuss with the Santa Clarita Valley Water Agency and the Santa Clarita Valley Water Agency's archaeologist the potential to reduce the level of Native American monitoring to "spot monitoring" or even to cease Native American monitoring based on the condition and types of soil observed during monitoring and the monitoring results to date.

TCR-2 Archaeological/Cultural Resource Document Submittal

Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, and monitoring reports) shall be provided to any Native American tribal organization that requested and participated in the AB 52 consultation process for internal records-

TCR-3 Native American Consultation

The Santa Clarita Valley Water Agency shall, in good faith, consult with any Native American tribal organization that requested and participated in the AB 52 consultation process on the disposition and treatment of any Tribal Cultural Resource encountered during all ground disturbing activities.

Can you please review and let me know if this is acceptable.

Please contact me with any questions.

Thanks.

Rick Vasilopulos Water Resources Planner Santa Clarita Valley Water Agency 26501 Summit Circle Santa Clarita, CA 91350 Office: (661) 705-7912

rvasilopulos@scvwa.org

From: Jairo Avila < <u>jairo.avila@tataviam-nsn.us</u>>
Sent: Friday, February 19, 2021 3:26 PM
To: Rick Vasilopulos < <u>rvasilopulos@scvwa.org</u>>

Subject: Re: Well 205 Project Geotechnical Investigation

CAUTION - EXTERNAL SENDER

Hello Rick,

The Cultural Resource Management (CRM) Division of the Fernandeño Tataviam Band of Mission Indians has reviewed the supplemental information on the Well 205 Project and has no objections to the proposed Project design and Plan. However, there are concerns regarding the potential impacts to Tribal Cultural Resources (TCR)s during Project implementation due to the limited soil information and ground visibility during the October 2020 Pedestrian survey. The CRM Division finds the language provided by the CEQA Consultant as acceptable standard measures but requests that the following language be included in the environmental document as mitigation measures or conditions under Tribal Cultural Resources.

- FTBMI-TCR1: The Lead Agency shall retain a professional Native American monitor procured by the Fernandeño Tataviam Band of Mission Indians to observe all ground- disturbing activities up to 5-feet below the surface of native soil, unless there is evidence to suggest cultural resources extend below the specified depth. Ground disturbing activities includes, but are not limited to tree/shrub removal and planting, clearing/grubbing, grading, excavation, trenching, drainage and irrigation removal and installation, and archaeological work. If cultural resources are encountered, the Native American monitor will have the authority to request ground disturbing activities cease within 60-feet of discovery to assess and document potential finds in real time.
- **FTBMI-TCR2:** Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, and monitoring reports) shall be provided to the Fernandeño Tataviam Band of Mission Indians.
- **FTBMI-TCR-2:** The Lead Agency and/or applicant shall, in good faith, consult with the Fernandeño Tataviam Band of Mission Indians on the disposition and treatment of any Tribal Cultural Resource encountered during all ground disturbing activities.

Should there be any issues with this request, we would be glad to schedule a consultation meeting to discuss the Project and find other alternatives. I appreciate your time and look forward to future updates on this Project.

Respectfully,

Jairo F. Avila, M.A., RPA.

Tribal Historic and Cultural Preservation Officer

Cultural Resources Management Division

Tribal Historic and Cultural Preservation Department

Fernandeño Tataviam Band of Mission Indians

1019 Second Street, Suite 1 San Fernando, California 91340

Office: (818) 837-0794

Website: http://www.tataviam-nsn.us

From: Rick Vasilopulos < rvasilopulos@scvwa.org>

Sent: Tuesday, January 19, 2021 2:15 PM **To:** Jairo Avila <<u>jairo.avila@tataviam-nsn.us</u>>

Subject: FW: Well 205 Project Geotechnical Investigation

[CAUTION] EXTERNAL Email. Exercise caution.

Hello Jairo,

I just wanted to touch base on our Well 205 project that we had discussed via email a few months ago. You had asked if we had any geotechnical reporting on the project site, which we didn't. I'm not sure if seeing what our consultant is proposing will be enough for you to get to our final consultation on the project, but I've listed what the consultant plans to do below. We would like to get the tribes buy-in prior to formally accepting KI's proposal:

Below are excerpts from the Well 205 final design proposal that we received regarding the subconsultant geotechnical work proposed. They could be relevant to the information from the tribe's representative about work that would be performed on the site.

Kennedy Jenks subconsultant, Field Exploration OGI, proposes to advance two hollow-stem-auger drill holes within the proposed facility footprint. One drill hole will be advanced to a depth of about 50 feet in the footprint area of the ion exchange vessels and one drill hole will be advanced to a depth of about 30 feet in the footprint area of the chemical storage/shade structure. The drill holes will be advanced to the target depths or to refusal, whichever occurs first. Soil samples will be recovered at about 2-1/2-foot intervals to about 10 feet and at 5-foot intervals to drilling termination for laboratory testing. OGI's field geologist will log the recovered samples in general accordance with ASTM D2488 for visual soil classification. Following completion, each drill hole will be backfilled with the excavated cuttings; excess cuttings, if any, will be spread in earthen areas onsite. The field exploration is estimated to take one day. Geotechnical Laboratory TestingOGI will perform geotechnical laboratory testing on selected earth materials sampled in the drill holes to estimate engineering parameters of the sampled soil materials. The laboratory testing program is expected to consist of moisture/density relationships, grainsize, Atterberg limits (plasticity), consolidation, strength, expansion potential, compaction, and limited soil chemistry for corrosion (pH, resistivity, sulfates, and chlorides). Geotechnical Evaluation and ReportingAfter completion of the field exploration, OGI will evaluate the findings and incorporate them into the geotechnical design report for the three facilities. The report will include the drill hole logs, laboratory test results, and geotechnical design criteria for the project elements. The focused report will summarize: ◆Soil and groundwater conditions encountered • Suitability of onsite soil for use as fill and select fill material • Anticipated excavation conditions: o Grading recommendations, consisting of clearing and grubbing, stockpiling topsoil (ifapplicable), preparation of areas to receive fill, thickness of lifts, ando Foundation bearing design parameters and seismic design parameters for the foundations assuming shallow spread footing foundations.

Below is our CEQA consultants mitigation measures for the project. They are similar to the one for our Deane Tank project that we met on last month.

Well 205 Cultural Resources Mitigation Measures

CR-1 Cultural Resources Sensitivity Training

Prior to the start of ground-disturbing activities, an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983) shall conduct cultural and tribal cultural resources sensitivity training for all construction workers involved in ground-disturbing activities. A local Native American representative shall participate in the sensitivity training and have the opportunity to distribute information regarding cultural resources and/or protection of cultural resources.

CR-2 Unanticipated Archaeological Resources

In the unlikely event archaeological resources are unexpectedly encountered during ground-disturbing activities, work within 50 feet of the find shall be halted and an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983) shall be contacted immediately to evaluate the find. If the find is prehistoric, then a local Native American representative shall also be contacted to participate in the evaluation of the find. Impacts to the find shall be avoided to the extent feasible; methods of avoidance may include, but shall not be limited to, capping or fencing, or project redesign. If necessary, the archaeologist may be required to prepare a treatment plan for archaeological testing in consultation with the local Native American representative. If the discovery proves to be eligible for the CRHR and cannot be avoided by the project, additional work, such as data recovery excavation, may be warranted to mitigate any significant impacts to historical resources.

Please review the measures and the Geotechnical work to be completed as stated above and let me know if you have enough information to be able to set up the formal consultation.

Thank you,

Rick Vasilopulos Water Resources Planner Santa Clarita Valley Water Agency 26501 Summit Circle Santa Clarita, CA 91350 Office: (661) 705-7912

rvasilopulos@scvwa.org