INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

MATILIJA GROUNDWATER SUPPLY TEST/MONITORING WELL

Prepared by:

Casitas Municipal Water District
1055 Ventura Avenue
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Prepared with the assistance of:

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January 2025

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
APN	Assessor's Parcel Number
APCD	Ventura County Air Pollution Control District
AQMP	Air Quality Management Plan
BMP	Best Management Practice
BOP	blow out preventer
Canal	Robles Diversion Canal
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CH_4	methane
CMWD	Casitas Municipal Water District
CNEL	Community Noise Equivalent Level
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2E	carbon dioxide equivalent
dB	decibel
dBA	decibel A-weighted
DNL	Day-Night Sound Level
EIR	Environmental Impact Report
EPA	Environmental Protection Agency (United States)
GHG	greenhouse gas
GSA	groundwater sustainability agency
GWP	global-warming-potential
H_2S	hydrogen sulfide
Hz	Hertz
Leq	Equivalent Continuous Noise Level
N_2	nitrogen
N_2O	nitrous oxide
NOx	nitrogen oxides
O_2	oxygen
O_3	ozone
$PM_{2.5}$	fine inhalable particulate matter (2.5 micrometers or less in diameter)
PM_{10}	coarse inhalable particulate matter (10 micrometers or less in diameter)
ppm	parts per million
RCNM	Roadway Construction Noise Model
ROG	reactive organic gases
SCAQMD	South Coast Air Quality Management District
SGMA	Sustainable Groundwater Management Act
SWPPP	Stormwater Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
VOC	volatile organic compound

DRAFT MITIGATED NEGATIVE DECLARATION FOR THE MATILIJA GROUNDWATER SUPPLY TEST/MONITORING WELL

PROJECT DESCRIPTION

The Project is comprised of one vertical well completed in the Matilija Sandstone Formation passing through several other formations to a depth of about 7,000 feet. Well piping would be installed at the wellhead, which would be used for testing and monitoring purposes.

The Project site includes the drill rig layout area, well location, drill cuttings disposal area, detention basins and adjacent areas associated with Project activities. These areas encompass approximately 4.7 acres. Heavy-duty trucks transporting equipment, materials and supplies would utilize the existing paved Robles Canal access road. Construction staging would occur within the Project footprint. An ephemeral drainage feature at the site would be avoided as the well discharge pipe would traverse this feature and transport produced groundwater to the detention basins for infiltration and evaporation.

Construction would begin by grubbing and leveling the Project site as needed to provide an area suitable for operating drilling equipment. The drilling rig and related support equipment would require a footprint of up to 215 feet by 150 feet (approximately 0.7 acre). No permanent power, lighting, or generators are proposed. Proposed well production facilities would be located within the drill rig layout area. All produced groundwater would be discharged to a series of detention basins for infiltration and evaporation. No discharge would occur to the Robles Canal or other surface waters.

The proposed wellbore would commence with the installation of a relatively shallow conductor casing, approximately 16-inches in diameter, set in cement in a minimum 50-foot-deep, 22-inch minimum diameter borehole. An approximately 15-inch diameter bore would then be drilled to about 1,000 feet, geophysically surveyed, then completed with a minimum 9-inch diameter steel casing equipped with a bottom grout shoe. The casing would then be cemented completely in place, intending to fully isolate the Sespe Formation (from which other proximal local wells may extract groundwater) from deeper exploration. Upon cement cure, an 8-inch diameter bore would be advanced toward 7,000-feet, targeting the base of the Matilija Sandstone Formation, with cuttings logged on a full-time basis.

Upon reaching total depth, the bore would be geophysically surveyed, and an approximately 5.5-inch diameter steel casing would be installed. The annular space would be cemented from the inside-out through a grout shoe. Once hardened, upwards of ten selected zones between approximately 7,000 and 5,000 feet in depth would be subject to a “gun-perforation” to allow the Matilija Sandstone Formation groundwater to enter the casing and flow upwards under artesian pressure to be quantified and sampled. Several zones would be sampled via this method of consecutively perforating, flowing, and sampling each. Exact depths of perforations would be established upon review of the log.

Drilling muds, cuttings and fluids would be airlifted, pumped or allowed to flow under artesian pressure from the well to develop the well. Drill cuttings (geologic materials removed from the bore hole) would be separated and spread on the Project site. The estimated volume of cuttings is 4,000 cubic feet or about 150 cubic yards. The cuttings would to be left on-site unless testing identifies petroleum hydrocarbon or other contamination. Drilling muds and fluids would be clarified and/or tanked and removed from the site. Drilling mud requiring disposal would be conducted under an appropriate manifest and disposed of at an authorized facility.

Well drilling would require about six weeks and is tentatively scheduled for summer 2025. Drilling operations would continue 24 hours per day, seven days per week (unless an unforeseen problem or obstacle is encountered). Upon completion, the well head would be equipped with a high-pressure valve (no pumping is anticipated to be required) and above-grade piping such that the entire confined pressure and/or artesian flow can be controlled, quantified, monitored, and tested over several years. It is estimated three years of monitoring and testing would provide adequate information to determine if a permanent well is feasible and, if so, to provide for information for design criteria for its development. After this three-year test period, the well would remain in place with operations conducted as determined by review of the data collected over the test period.

PROJECT LOCATION

The proposed well site (Project site) is located on property owned by Casitas Municipal Water District (CMWD) in the Meiners Oaks area of unincorporated Ventura County on Assessor Parcel Number (APN) 011-0-270-030. The Project site is approximately 400 feet southwest of the Robles Diversion and Fish Passage Facility (Robles Facility) on the west side of the Ventura River.

PROJECT PROPONENT AND LEAD AGENCY

Casitas Municipal Water District (CMWD)
1055 Ventura Avenue
Oak View, CA 93022
Contact: Julia Aranda, P.E., Engineering Manager
Phone: 1-805-649-2251 x 107
Email: jaranda@casitaswater.com

PROPOSED FINDINGS

CMWD has prepared this Mitigated Negative Declaration (MND) pursuant to Sections 15070-15075 of the State Guidelines for the Implementation of the California Environmental Quality Act. This Mitigated Negative Declaration documents CMWD's finding that there are no significantly adverse unavoidable impacts associated with the proposed project, and the project does not require the preparation of an Environmental Impact Report (EIR). The attached Initial Study identifies and discusses potential impacts, mitigation measures and residual impacts for identified subject areas.

PUBLIC COMMENTS

In compliance with Section 15073 of the State Guidelines for the Implementation of the California Environmental Quality Act, CMWD will accept written comments on the adequacy of the information contained in the Draft MND. Please make sure that written comments reach the CMWD's office by 5:00 p.m. on _____, 2025, the close of the public review period. As a result of this project, potentially significant, but mitigable effects on the environment are anticipated in the areas of biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality and noise. After the close of the public comment period, CMWD will make appropriate changes to the document pursuant to the comments received and will release a Final MND.

Due to the non-complex nature of this project, a separate environmental hearing will not be held. However, public testimony will be accepted at the MND approval hearing before the CWMD Board of Directors. For information regarding scheduling of this hearing, please contact Ms. Julia Aranda at (805) 649-2251 ext. 107.

MITIGATION MEASURES

The following mitigation measures have been integrated into the proposed project and would reduce impacts to a level of less than significant.

Air Quality

AQ-1 The following emissions reduction measures shall be implemented during site preparation, well drilling and well head piping and equipment installation:

- The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excessive amounts of dust.
- Pre-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations. Application of water should penetrate sufficiently to minimize fugitive dust during grading activities.
- All trucks shall be required to cover their loads as required by California Vehicle Code §23114.
- All graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally-safe soil stabilization materials, and/or roll-compaction as appropriate. Watering shall be done as often as necessary.

- Graded and/or excavated inactive areas of the construction site shall be monitored at least weekly for dust stabilization. Soil stabilization methods, such as water and roll-compaction, and environmentally-safe dust control materials, shall be periodically applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area shall be seeded and watered until plant growth is evident, or periodically treated with environmentally-safe dust suppressants, to prevent excessive fugitive dust.
- Signs shall be posted on site limiting traffic to 15 miles per hour or less.
- During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earth moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on site activities and operations from being a nuisance or hazard, either off site or on site. The site superintendent/supervisor shall use their discretion in conjunction with the Ventura County Air Pollution Control District (VCAPCD) in determining when winds are excessive.
- Adjacent streets and roads shall be swept at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.
- Personnel involved in grading operations, including contractors and subcontractors, shall be advised to wear respiratory protection in accordance with California Division of Occupational Safety and Health regulations.
- Material stockpiles shall be enclosed, covered, stabilized, or otherwise treated as needed to prevent blowing fugitive dust off site.
- All project construction and site preparation operations shall be conducted in compliance with all applicable VCAPCD Rules and Regulations with emphasis on Rule 50 (Opacity), Rule 51 (Nuisance), Rule 55 (Fugitive Dust) and Rule 10 (Permits Required).
- Off-road construction equipment shall utilize engines certified to the Federal Emissions Standard Category of Tier 3 or Tier 4, if available.
- Signs displaying the VCAPCD complaint line telephone number (805/303-1400 during business hours; 805/303-2797 after hours) shall be posted in a prominent location visible to the public.

Biological Resources

BIO-1 To avoid disturbance of birds protected under the Migratory Bird Treaty Act, activities related to the Project including vegetation removal, ground disturbance and construction shall occur outside of the bird breeding season for migratory birds including raptors (February 1 through August 1), if practicable.

If Project activities must occur during the bird breeding season, a breeding bird survey shall be conducted by a qualified biologist no more than 3 days prior to the initiation of ground disturbing activities. The breeding bird pre-construction survey shall be conducted on foot inside the Project footprint including a 300-foot buffer. The survey shall be conducted by a biologist familiar with the identification of local avian species. If active nests are found, ground disturbing activities within a nest setback area surrounding the nest shall be postponed or halted. Ground disturbing activities can occur outside of the setback area. The nest setback area shall be determined by the qualified biologist based on the affected species and the proposed work activity and shall be demarcated by the qualified biologist. All construction personnel shall be notified as to the existence of the nest setback area zone and told to avoid entering the buffer zone during the nesting season. No ground disturbing activities shall occur inside this nest setback area until the biologist has confirmed that that the nest has been abandoned and/or breeding/nesting is completed, and the young have fledged the nest.

Implementation of this measure would minimize potential adverse effects to nesting birds and reduce biological resources impacts to a level of less than significant.

Cultural Resources

CUL-1 In the unanticipated event that cultural material(s) are encountered during ground-disturbing activities at the Project site, all work shall be stopped within a 100-foot radius of the find and a qualified archaeologist shall be summoned to the Project site to evaluate the significance of the material(s) in question. Work may resume once the find has been evaluated and any necessary action taken to appropriately address the encountered material.

Implementation of this measure would minimize potential adverse effects to discovered cultural resources and human remains, which would reduce cultural resources impacts to a level of less than significant.

Hazards and Hazardous Materials

HAZ-1 CMWD shall require the contractor to develop and implement a Hazard Detection and Prevention Plan/Emergency Response (Plan) to be followed throughout all phases of construction. The Plan shall include/address but not be limited to the following:

1. The Project well shall have hydraulic blow out prevention (BOP) equipment for the anticipated pressures. The hydraulic BOP equipment should have remote control on ground and a remotely operated choke, rotating head, and a gas buster equipment should be installed before drilling out of surface pipe.
2. The drilling operation shall have a mud program to minimize the risk of having hydrogen sulfide (H_2S) and other uncontrolled formation fluids at the surface. Proper mud weight and safe drilling practices should be applied, and H_2S scavengers should be used to minimize the hazards while drilling. The drilling program should include the use of a Garrett gas train or hatch tester to inspect for sulfide concentrations in the mud system.

3. Appropriate prohibitions/limitations on smoking, open flames or spark-producing equipment at the Project site.
4. Appropriate firefighting equipment to be provided and maintained at all times (including but not limited to a minimum of four fire extinguishers having a minimum rating of 40 B:C conveniently located at the rig and additional extinguishers near the fuel storage area, or current regulatory requirement).
5. Use only approved containers/portable tanks for storage of flammable and combustible materials.
6. Worker Education including but not limited to training on the explosive, fire and H_2S hazards associated with the well drilling operation.
7. Requirements for personal protective equipment shall state that H_2S meters should also be positioned on the drilling rig floor to alarm the field crew before the gas enters the work area, or each field member wear personal H_2S monitors in the breathing zone (identified as an 18-inch sphere around the head). The monitors should be set with a visual and audible alarm at 10 parts per million (ppm) and should be bump tested at a frequency of every 30 days.
8. A multi-gas monitor shall be used in the work area. The multi-gas meters should include H_2S, oxygen (O_2), Flammable Gas (Lower Explosive Limit), carbon dioxide (CO), and volatile organic compounds (VOCs) set to alarm at the permissible exposure limits for each type of gas.

Implementation of this measure would minimize the potential for blow-out hazards, gas inhalation hazards and wildfire and reduce hazards and hazardous materials impacts to a level of less than significant.

Hydrology and Water Quality

HYD-1 The drill cuttings spread at the Project site shall be surrounded by a berm to prevent off-site transport by stormwater run-off.

Implementation of this measure would minimize potential adverse effects of erosion and siltation and reduce hydrology and water quality impacts to a level of less than significant.

Noise

NOI-1 The drill rig and associated equipment (including the generators) shall be entirely enclosed with minimum 20-foot-tall temporary sound walls providing a minimum of 14 dB transmission loss at an octave band center frequency of 125 Hz. The sound walls shall be in place whenever drilling is ongoing.

NOI-2 CMWD shall provide advanced notification about the Project, at least two weeks prior to initiation construction, to residents within a one-mile radius of the Project site. The notifications shall include a description of Project construction activities and schedule including the period and duration of 24-hour per day drilling operations. The notification shall also provide a contact ’s name, phone number and email address to whom residents can direct their questions and concerns.

Implementation of these measures would minimize potential adverse effects of drilling noise and reduce noise impacts to a level of less than significant.

MITIGATION MONITORING AND REPORTING

Section 15074(d) of the State Guidelines for the Implementation of the California Environmental Quality Act and Section 21081.6 of the Public Resources Code, requires the lead agency (CMWD) to adopt a monitoring program to ensure mitigation measures are complied with during implementation of the project. In compliance with these requirements, a Mitigation Monitoring Program Implementation Table is provided below. This Table identifies the timing, monitoring methods, responsibility and compliance verification method for all mitigation measures identified in this MND. Monitoring would be conducted by CMWD's project manager and qualified specialists under contract to CMWD.

MATILIJA GROUNDWATER SUPPLY PROJECT
MITIGATION MONITORING PROGRAM – IMPLEMENTATION TABLE

Mitigation Measure	Implementation Timing	Monitoring Methods	Monitoring Frequency	Party Responsible for Monitoring	Method of Compliance Verification	Verification of Compliance		
						Signature	Date	Remarks
AIR QUALITY								
AQ-1 The following emissions reduction measures shall be implemented during site preparation, well drilling and well head piping and equipment installation: • The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excessive amounts of dust.	Throughout the construction period	The construction inspector will observe work in progress	Initially and weekly thereafter	CMWD	CMWD staff will prepare inspection reports			
• Pre-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations. Application of water (preferably reclaimed, if available) should penetrate sufficiently to minimize fugitive dust during grading activities	Throughout the construction period	The construction inspector will observe work in progress	Initially and weekly thereafter	CMWD	CMWD staff will prepare inspection reports			
• All trucks shall be required to cover their loads as required by California Vehicle Code §23114.	Throughout the construction period	The construction inspector will observe work in progress	Initially and weekly thereafter	CMWD	CMWD staff will prepare inspection reports			
• All graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally-safe soil stabilization materials, and/or roll-compaction as appropriate. Watering shall be done as often as necessary and reclaimed water shall be used whenever possible.	Throughout the construction period	The construction inspector will inspect roadways and other exposed soils for excessive dust generation	Initially and weekly thereafter	CMWD	CMWD staff will prepare inspection reports			

MATILIJA GROUNDWATER SUPPLY PROJECT
MITIGATION MONITORING PROGRAM – IMPLEMENTATION TABLE

Mitigation Measure	Implementation Timing	Monitoring Methods	Monitoring Frequency	Party Responsible for Monitoring	Method of Compliance Verification	Verification of Compliance		
						Signature	Date	Remarks
AIR QUALITY (Continued)								
• Graded and/or excavated inactive areas of the construction site shall be monitored at least weekly for dust stabilization. Soil stabilization methods, such as water and roll-compaction, and environmentally-safe dust control materials, shall be periodically applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area should be seeded and watered until grass growth is evident, or periodically treated with environmentally-safe dust suppressants, to prevent excessive fugitive dust	Throughout the construction period	The construction inspector will inspect dust control efforts and order additional measures as needed	Initially and weekly thereafter	CMWD	CMWD staff will prepare inspection reports			
• Signs shall be posted on-site limiting off-road traffic speed to 15 miles per hour or less	Throughout the construction period	The construction inspector will ensure signs are posted and maintained	Initially and weekly thereafter	CMWD	CMWD staff will prepare inspection reports			
• During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earth moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on-site activities and operations from being a nuisance or hazard, either off-site or on-site. The site superintendent/supervisor shall use their discretion in conjunction with the VCAPCD in determining when winds are excessive	Throughout the construction period	The construction inspector will coordinate with site supervisor to curtail construction operations as needed during high wind periods	Initially and weekly thereafter	CMWD	CMWD staff will prepare inspection reports			

MATILIJA GROUNDWATER SUPPLY PROJECT
MITIGATION MONITORING PROGRAM – IMPLEMENTATION TABLE

Mitigation Measure	Implementation Timing	Monitoring Methods	Monitoring Frequency	Party Responsible for Monitoring	Method of Compliance Verification	Verification of Compliance		
						Signature	Date	Remarks
AIR QUALITY (Continued)								
• Adjacent streets and roads shall be swept at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads	Throughout the construction period	The construction inspector will ensure roads are swept as needed	Initially and weekly thereafter	CMWD	CMWD staff will prepare inspection reports			
• Personnel involved in grading operations, including contractors and subcontractors, should be advised to wear respiratory protection in accordance with California Division of Occupational Safety and Health regulations	Throughout the construction period	The construction inspector will observe work in progress	Initially and weekly thereafter	CMWD	CMWD staff will prepare inspection reports			
• Material stockpiles shall be enclosed, covered, stabilized, or otherwise treated as needed to prevent blowing fugitive dust off-site.	Throughout the construction period	The construction inspector will observe work in progress	Initially and weekly thereafter	CMWD	CMWD staff will prepare inspection reports			
• All project construction and site preparation operations shall be conducted in compliance with all applicable VCAPCD Rules and Regulations with emphasis on Rule 50 (Opacity), Rule 51 (Nuisance), Rule 55 (Fugitive Dust) and Rule 10 (Permits Required).	Throughout the construction period	The construction inspector will observe work in progress	Initially and weekly thereafter	CMWD	CMWD staff will prepare inspection reports			
• Off-road construction equipment shall utilize engines certified to the Federal Emissions Standard Category of Tier 3 or Tier 4, if available.	Throughout the construction period	The construction inspector will ensure appropriate engines are used, if available	Initially and weekly thereafter	CMWD	CMWD staff will prepare inspection reports			

MATILIJA GROUNDWATER SUPPLY PROJECT
MITIGATION MONITORING PROGRAM – IMPLEMENTATION TABLE

Mitigation Measure	Implementation Timing	Monitoring Methods	Monitoring Frequency	Party Responsible for Monitoring	Method of Compliance Verification	Verification of Compliance		
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AIR QUALITY (Continued)								
• Signs displaying the VCAPCD complaint line telephone number (805/303-1400 during business hours; 805/303-2797 after hours) shall be posted in a prominent location visible to the public.	Throughout the construction period	The construction inspector will ensure the signage is in place	Initially and weekly thereafter	CMWD	CMWD staff will prepare inspection reports			

MATILIJA GROUNDWATER SUPPLY PROJECT
MITIGATION MONITORING PROGRAM – IMPLEMENTATION TABLE

Mitigation Measure	Implementation Timing	Monitoring Methods	Monitoring Frequency	Party Responsible for Monitoring	Method of Compliance Verification	Verification of Compliance		
						Signature	Date	Remarks
BIOLOGICAL RESOURCES								
BIO-1 To avoid disturbance of birds protected under the Migratory Bird Treaty Act, activities related to the Project including vegetation removal, ground disturbance and construction shall occur outside of the bird breeding season for migratory birds including raptors (February 1 through August 1), if practicable. If Project activities must occur during the bird breeding season, a breeding bird survey shall be conducted by a qualified biologist no more than 3 days prior to the initiation of ground disturbing activities. The breeding bird pre-construction survey shall be conducted on foot inside the Project footprint including a 300-foot buffer. The survey shall be conducted by a biologist familiar with the identification of local avian species. If active nests are found, ground disturbing activities within a nest setback area surrounding the nest shall be postponed or halted. Ground disturbing activities can occur outside of the setback area. The nest setback area shall be determined by the qualified biologist based on the affected species and the proposed work activity and shall be demarcated by the qualified biologist. All construction personnel shall be notified as to the existence of the nest setback area zone and told to avoid entering the buffer zone during the nesting season. No ground disturbing activities shall occur inside this nest setback area until the biologist has confirmed that that the nest has been abandoned and/or breeding/nesting is completed, and the young have fledged the nest.	Bird breeding season: February 1 through August 1	The construction inspector will ensure the breeding bird survey is conducted and nest setback zones are avoided as required	Weekly during the bird breeding season	CMWD	CMWD staff will prepare inspection reports			

MATILIJA GROUNDWATER SUPPLY PROJECT
MITIGATION MONITORING PROGRAM – IMPLEMENTATION TABLE

Mitigation Measure	Implementation Timing	Monitoring Methods	Monitoring Frequency	Party Responsible for Monitoring	Method of Compliance Verification	Verification of Compliance		
						Signature	Date	Remarks
CULTURAL RESOURCES								
CUL-1 In the unanticipated event that cultural material(s) are encountered during ground-disturbing activities at the Project site, all work shall be stopped within a 100-foot radius of the find and a qualified archaeologist shall be summoned to the Project site to evaluate the significance of the material(s) in question. Work may resume once the find has been evaluated and any necessary action taken to appropriately address the encountered material.	Throughout the construction period	The construction inspector will observe work in progress and ensure work is suspended as appropriate, the project manager will ensure evaluation of the find is completed	Initially and weekly thereafter	CMWD	CMWD staff will prepare an incident report to be included in the project inspection report			
HAZARDS AND HAZARDOUS MATERIALS								
HAZ-1 CMWD shall require the contractor to develop and implement a Hazard Detection and Prevention Plan/Emergency Response (Plan) to be followed throughout all phases of construction. The Plan shall include/address but not be limited to the following: 1. The Project well shall have hydraulic blow out prevention (BOP) equipment for the anticipated pressures. The hydraulic BOP equipment should have remote control on ground and a remotely operated choke, rotating head, and a gas buster equipment should be installed before drilling out of surface pipe.	The Plan shall be approved prior to the start of construction	The CMWD project manager will ensure the Plan is developed, approved and implemented	Weekly, throughout the construction period	CMWD	CMWD staff will review the Plan and document implementation			

MATILIJA GROUNDWATER SUPPLY PROJECT
MITIGATION MONITORING PROGRAM – IMPLEMENTATION TABLE

Mitigation Measure	Implementation Timing	Monitoring Methods	Monitoring Frequency	Party Responsible for Monitoring	Method of Compliance Verification	Verification of Compliance		
						Signature	Date	Remarks
HAZARDS AND HAZARDOUS MATERIALS (Continued)								
2. The drilling operation shall have a mud program to minimize the risk of having hydrogen sulfide (H_2S) and other formation fluids at the surface. Proper mud weight and safe drilling practices should be applied, and H_2S scavengers should be used to minimize the hazards while drilling. The drilling program should include the use of a Garrett gas train or hatch tester to inspect for sulfide concentrations in the mud system. 3. Appropriate prohibitions/limitations on smoking, open flames or spark-producing equipment at the Project site. 4. Appropriate firefighting equipment to be provided and maintained at all times (including but not limited to a minimum of four fire extinguishers having a minimum rating of 40 B:C conveniently located at the rig and additional extinguishers near the fuel storage area, or current regulatory requirement). 5. Use only approved containers/portable tanks for storage of flammable and combustible materials. 6. Worker Education including but not limited to training on the explosive, fire and H_2S hazards associated with the well drilling operation.	The Plan shall be approved prior to the start of construction	The CMWD project manager will ensure the Plan is developed, approved and implemented	Weekly, throughout the construction period	CMWD	CMWD staff will review the Plan and document implementation			

MATILIJA GROUNDWATER SUPPLY PROJECT
MITIGATION MONITORING PROGRAM – IMPLEMENTATION TABLE

Mitigation Measure	Implementation Timing	Monitoring Methods	Monitoring Frequency	Party Responsible for Monitoring	Method of Compliance Verification	Verification of Compliance		
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HAZARDS AND HAZARDOUS MATERIALS (Continued)								
7. Requirements for personal protective equipment shall state that H_2S meters should also be positioned on the drilling rig floor to alarm the field crew before the gas enters the work area, or each field member wear personal H_2S monitors in the breathing zone (identified as an 18-inch sphere around the head). The monitors should be set with a visual and audible alarm at 10 parts per million (ppm) and should be bump tested at a frequency of every 30 days. 8. A multi-gas monitor shall be used in the work area. The multi-gas meters should include H_2S, oxygen (O_2), Flammable Gas (Lower Explosive Limit), carbon dioxide (CO), and volatile organic compounds (VOCs) set to alarm at the permissible exposure limits for each type of gas.	The Plan shall be approved prior to the start of construction	The CMWD project manager will ensure the Plan is developed, approved and implemented	Weekly, throughout the construction period	CMWD	CMWD staff will review the Plan and document implementation			
HYDROLOGY AND WATER QUALITY								
HYD-1 The drill cuttings spread at the Project site shall be surrounded by a berm to prevent off-site transport by stormwater run-off.	During spreading of drill cuttings	The construction inspector will observe work in progress	Initially and weekly thereafter	CMWD	CMWD staff will prepare inspection reports			
NOISE								
NOI-1 The drill rig and associated equipment (including the generators) shall be entirely enclosed with minimum 20-foot-tall temporary sound walls providing a minimum of 14 dB transmission loss at an octave band center frequency of 125 Hz. The sound walls shall be in place whenever drilling is ongoing.	Prior to the initiation of drilling	The construction inspector will ensure sound walls are in place and maintained	Initially and weekly thereafter	CMWD	CMWD staff will prepare inspection reports			

MATILIJA GROUNDWATER SUPPLY PROJECT
MITIGATION MONITORING PROGRAM – IMPLEMENTATION TABLE

Mitigation Measure	Implementation Timing	Monitoring Methods	Monitoring Frequency	Party Responsible for Monitoring	Method of Compliance Verification	Verification of Compliance		
						Signature	Date	Remarks
NOI-2 The CMWD shall provide advanced notification about the Project, at least two weeks prior to initiation construction, to residents within a one-mile radius of the Project site. The notifications shall include a description of Project construction activities and schedule including the period and duration of 24-hour per day drilling operations. The notification shall also provide a contact 's name, phone number and email address to whom residents can direct their questions and concerns.	Two weeks prior to the initiation of drilling	The CMWD project manager will ensure notification is completed	Once, prior to drilling	CMWD	CMWD staff will prepare inspection reports			

1.0 PROJECT INFORMATION

1.1 PROJECT NAME

Matilija Groundwater Supply Project Test/Monitoring Well

1.2 LEAD AGENCY AND PROJECT SPONSOR

Casitas Municipal Water District (CMWD)
1055 Ventura Avenue
Oak View, CA 93022
Contact: Julia Aranda, P.E., Engineering Manager
Phone: 805-649-2251 x 107
Email: jaranda@casitaswater.com

1.3 PROJECT LOCATION

The proposed well site (Project site) is located on property owned by CMWD in the Meiners Oaks area of unincorporated Ventura County on Assessor Parcel Number (APN) 011-0-270-030. The Project site is approximately 400 feet southwest of the Robles Diversion and Fish Passage Facility (Robles Facility) on the west side of the Ventura River. Figure 1 shows the location of the Project site and regional location. Figure 2 shows the site access route for heavy-duty trucks. Figure 3 provides views of the Project site.

1.4 GENERAL PLAN DESIGNATION AND ZONING

General Plan designation: Open Space

Zoning: Open Space (OS-80 ac)

Overlays: Temporary Rental Unit Regulation (TRU); Dark Sky (DKS); Habitat Connectivity and Wildlife Corridors (HCWC)

1.5 SURROUNDING LAND USE AND SETTING

The Project site is undeveloped with the exception of gravel roads (Cooper Canyon and Rice Canyon Roads). The parcels located adjacent to the Project site are also undeveloped with the exception of the Robles Facility and Robles Diversion Canal (Canal) and paved access road located to the east. The closest residences are located across the Ventura River from the Project site approximately 1,200 feet to the east. The Project site is bordered by the Los Padre National Forest to the west.

1.6 DESCRIPTION OF OTHER PENDING AND APPROVED DEVELOPMENT

1.6.1 Ventura County

The Ventura County Resource Management Agency Planning Division's list of recently approved and under review projects (dated December 6, 2024) was reviewed to identify recently approved projects and projects currently under review in nearby areas that may result in a substantial physical change to the environment. Current projects under review are limited to:

- New building and six cabins at Camp Ramah (385 Fairview Road, Ojai)
- New building at Redemption Church of Ojai (190 El Roblar Drive, Ojai)
- Two parcel residential subdivision (130 N. Encinal Avenue, Ojai)

1.6.2 City of Ojai

Most projects currently under review or recently approved by City Planning would result in only very small physical changes to the environment such as oak tree removal, residential or small commercial remodeling or additions, and small accessory dwelling units. Projects that may result in a substantial physical change to the environment are limited to:

- 30 tiny home supportive housing cabin village (City Public Works Maintenance Yard)
- Two apartment buildings totaling 13 residential units (510 E. Ojai Ave, Ojai)
- Cabrillo Vista Affordable Housing: 50 new multifamily residential units (318 Bryant Street, Ojai)

1.7 PROJECT BACKGROUND AND OBJECTIVES

CMWD provides water supplies to the City of Ojai, Upper Ojai, the Ventura River Valley, western portion of the City of Ventura to Mills Road, and unincorporated Ventura County beach areas northwest of the City of Ventura. CMWD is a wholesale and retail water provider and serves a population of about 70,000. As a wholesale provider, CMWD serves 23 water purveyors. CMWD's sources of water include groundwater and surface water stored in Lake Casitas.

In response to the recent drought and anticipated future droughts, CMWD is pursuing numerous alternative water supplies and conservation measures intended to contribute to drought resiliency within the CMWD service area. These water supply projects include the proposed Project as well as the Ojai Wellfield Rehabilitation (complete) and the Ventura-Santa Barbara Counties Intertie Project.

As described by Water Resource Engineers Associates and Kear Groundwater in a preliminary report prepared for CMWD, based on historical precedent, current geological understanding indicates the Matilija Sandstone Formation correlates beneath the Project site, and using modern drilling capacity, a deep bore into the Matilija Sandstone Formation may have the potential to provide an emergency water supply for the CMWD.

To this end, the proposed Project would investigate the feasibility of extracting groundwater from what has been mapped as an isolated block of Matilija Sandstone Formation of the Eastern Santa Ynez Mountains. A test and monitoring well would be bored vertically approximately 7,000 feet into the Matilija Sandstone Formation in order to assess the viability of this water supply.

The proposed deep vertical well approach seeks to advance a slim borehole to explore the stratigraphy below the Project site to form a streamlined study of water quality and potential water quantity from known Eocene sandstones (primarily Matilija Sandstone) in the area. This formation is correlated to be present at depths below 5,000 feet. South-dipping and overturned strata in the Santa Ynez Mountains to the north are known to underlie the area as encountered in local oil exploration wells drilled between the 1920s and 1960s that did not encounter economically viable supplies of petroleum and were subsequently plugged and abandoned.

1.8 APPROVALS AND REGULATORY REQUIREMENTS

CMWD is the lead agency under the California Environmental Quality Act (CEQA) and has the responsibility to approve the Project and CEQA compliance document. The proposed project will require a ministerial well permit from Ventura County Public Works Agency, Watershed Protection District, Water Resources Division, Groundwater Resources Section.

1.9 CALIFORNIA NATIVE AMERICAN TRIBAL CONSULTATION

California Native America tribes traditionally and culturally affiliated with the Project area that have requested consultation pursuant to Public Resources Code section 21080.3 (also referenced as Assembly Bill [AB] 52) were mailed consultation request letters on October 23, 2024. CMWD has not received any responses as of January 9, 2025.

2.0 PROJECT DESCRIPTION

2.1 PROJECT COMPONENTS

The Project is comprised of one vertical well completed in the Matilija Sandstone Formation passing through several other formations to a depth of about 7,000 feet. Above-ground piping would be installed at the wellhead, which would be used for testing and monitoring purposes. The well is expected to flow under natural artesian pressure; therefore, a well pump is not required.

2.1.1 Project Site

The Project site includes the drill rig layout area, well location, drill cuttings disposal area, detention basins and adjacent areas associated with Project activities. These areas encompass approximately 4.7 acres as identified in Figure 1. The heavy-duty truck access route (Robles Canal access road) is shown in Figure 2. Photographs of the Project site are provided as Figure 3, including the proposed drill site, drill cuttings disposal area (southern portion) and detention basins site. Construction staging would occur within the Project footprint. An ephemeral drainage feature at the site would be avoided as the well discharge pipe would traverse this feature and transport produced groundwater to the detention basins for infiltration and evaporation.

2.1.2 Construction Phase

Construction would begin by grubbing and leveling the Project site as needed to provide an area suitable for operating drilling equipment. The drilling rig and related support equipment would require a footprint of up to 215 feet by 150 feet (approximately 0.7 acre) as shown on Figure 1. Within this footprint would be the following well drilling equipment (based on Kenai Drilling Rig 6):

- Drillers shack
- Three 1,400 horsepower electrical generators
- Two electric mud pumps
- Rotary table, top drive, draw-works and 142-foot-tall mast
- Shaker pit (for solids control and removal from drilling mud)
- Mud suction pit
- Two mud cleaners
- Mud bin
- Water tank
- Diesel fuel tank with containment
- Hydraulic pipe wrangler
- Pipe trailers and racks (to supply the pipe wrangler)
- Blow out preventer
- Tool house
- Lighting for dusk-to-dawn operations (three to four generator-powered light stands and rig lights)

It is anticipated a portable sanitation facility to serve on-site staff would be located inside the drill rig footprint. In addition, a tent or camper trailer may be placed in the same area for the hydrologists monitoring and logging the drilling operation. No shower or living facilities are planned.

2.1.3 Operational Phase

Well production facilities to be provided would include the following:

- A 10 feet x 6 feet x 10 feet-deep concrete thrust block.
- One 45 feet x 32 feet x 6-inch-thick concrete pad for valves and piping, including a supporting well head pad 5 feet x 5 feet x 12 inches.
- One stilling well tank, potentially 200-gallon capacity if needed.
- Well head high-pressure seal.
- Pressure-reducing and relief valves.
- Flow meter with pressure loggers.
- Well head discharge piping to the detention basins.
- Chain-link fence, 6 feet high with locked man-gate surrounding well head plumbing.
- A series of small detention basins (totaling about 0.25 acres)

No permanent power, lighting, or generators are proposed. Proposed well production facilities would be located within the drill rig layout area shown in Figure 1. All produced groundwater would be discharged to a series of detention basins for infiltration and evaporation. No discharge would occur to the Canal or other surface waters.

Piping for the Project would range from 4-inches to 8-inches in diameter and would generally operate at a maximum of 10 cubic feet per second. Portions of the pipeline would be pressurized, and others would operate via gravity flow depending on conditions. Pressure relief valves would discharge directly to the atmosphere. An ultrasonic or magnetic flow meter would be utilized on the vertical inlet to the stilling well.

2.1.4 Site Access

Access to the Project site would be provided from the northern terminus of Rice Road, which is gated and locked to prevent public access, using the existing concrete low-flow at-grade crossing of the Ventura River. No improvements to this crossing are proposed. Heavy-duty trucks transporting equipment, materials and supplies would utilize the existing Canal access road which parallels the Canal along the east side and connects to State Route 150 via De La Garrigue Road (Figure 2).

2.2 PROJECT CONSTRUCTION

2.2.1 Methodology

The proposed wellbore would commence with the installation of a relatively shallow conductor casing, approximately 16-inches in diameter, set in cement in a minimum 50-foot-deep, 22-inch minimum diameter borehole. An approximately 15-inch diameter bore would then be drilled to about 1,000 feet, geophysically surveyed, then completed with a minimum 9-inch diameter steel casing equipped with a bottom grout shoe. The casing would then be cemented completely in place, intending to fully isolate the Sespe Formation (from which other proximal local wells may extract groundwater) from deeper exploration. Upon cement cure, an 8-inch diameter bore would be advanced toward 7,000-feet targeting the base of the Matilija Sandstone Formation, with cuttings logged on a full-time basis.

Upon reaching total depth, the bore would be geophysically surveyed, and an approximately 5.5-inch diameter steel casing would be installed. The annular space would be cemented from the inside-out through a grout shoe. Once hardened, upwards of ten selected zones between approximately 7,000 and 5,000 feet in depth would be subject to a “gun-perforation” to allow the Matilija Sandstone Formation groundwater to enter the casing and flow upwards under artesian pressure to be quantified and sampled. Several zones would be sampled via this method of consecutively perforating, flowing, and sampling each. Exact depths of perforations would be established upon review of the log.

Drilling muds, cuttings and fluids would be airlifted, pumped or allowed to flow under artesian pressure from the well to develop the well. Drill cuttings (geologic materials removed from the bore hole) would be separated and spread on the Project site in the area shown in Figure 1. The estimated volume of cuttings is 4,000 cubic feet or about 150 cubic yards. The cuttings would to be left on-site unless testing identifies petroleum hydrocarbon or other contamination.

Drilling muds and fluids would be clarified and/or tanked and removed from the site. Drilling mud requiring disposal would be conducted under an appropriate manifest and disposed of at an authorized facility.

Upon completion, the well head would be equipped with a high-pressure valve (no pumping is anticipated to be required) such that the entire confined pressure and/or artesian flow can be controlled, quantified, monitored, and tested over several years. It is estimated three years of monitoring and testing would provide adequate information to determine if a permanent emergency well is feasible and, if so, to provide for information for design criteria for its development. After this three-year test period, the well would remain in place with operations conducted as determined by review of the data collected over the test period.

Drilling of the well would take approximately six weeks. Upon completion, it would be capped and fitted with a pressure and temperature gauge to gather preliminary information on probable performance and design information for the permanent plumbing for the test well head.

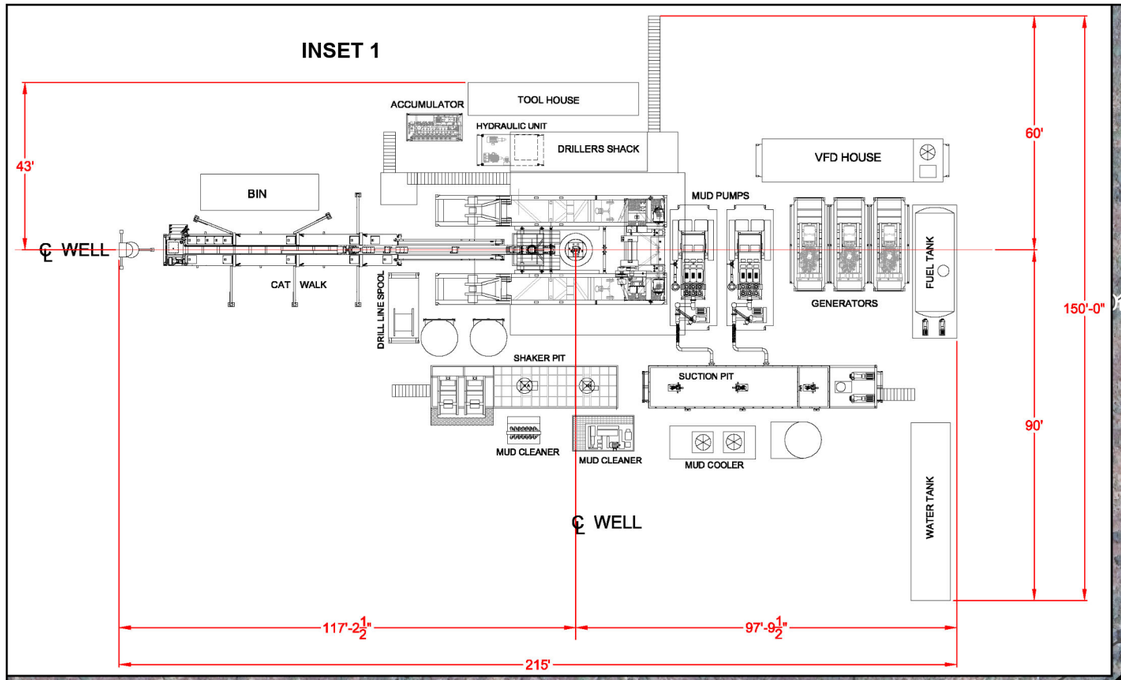
Construction water would be provided by CMWD via an existing on-site wharf head (hydrant). Water requirements are as follows.

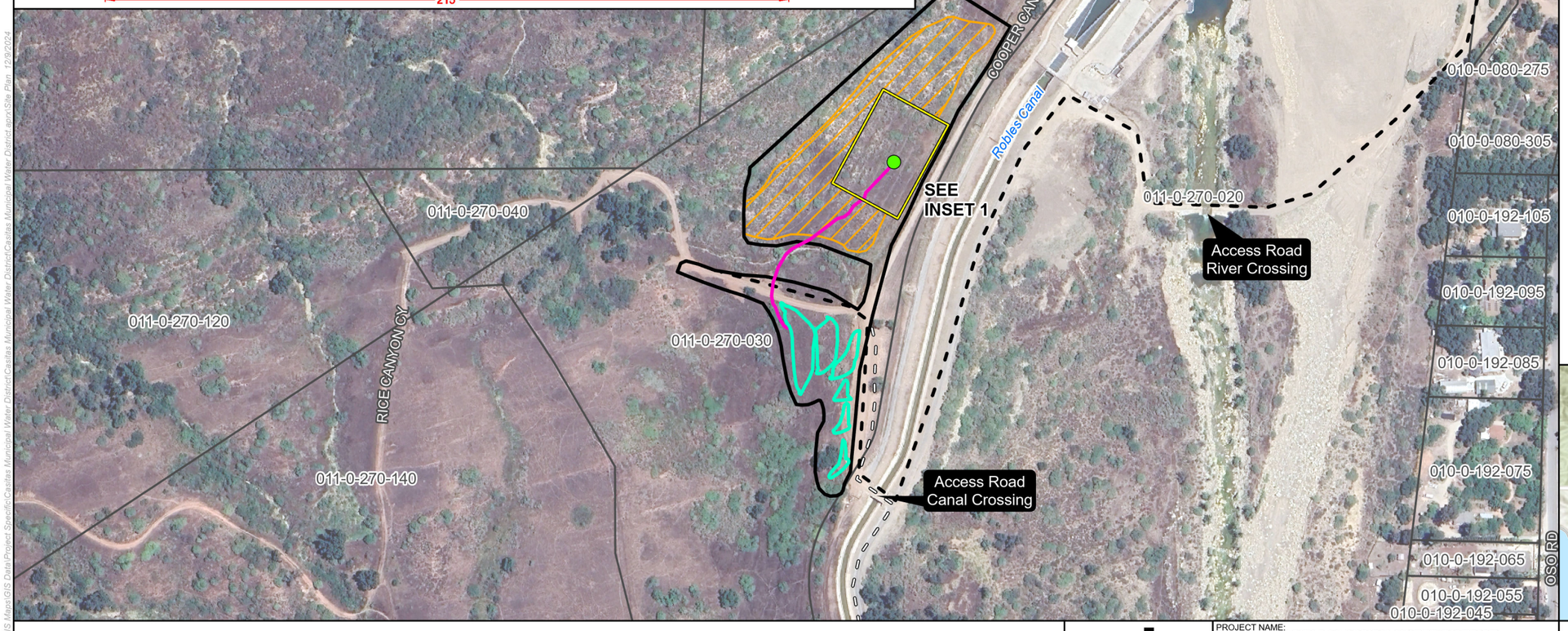
- Two hundred gallons per minute at 50 pounds per square inch, available 24-hours per day, seven days per week, but intermittently used.
- The maximum quantity of water for Project completion (for drill mud, testing, dust control) is estimated at 18.6 acre-feet.

2.2.2 Construction Equipment and Vehicles

The following list identifies the numbers and types of construction equipment and vehicles expected to be needed for site preparation and well drilling:

- Dozer
- Crane
- Motor grader
- Backhoe
- Wheeled loader
- Well cement batch plant





LEGEND:

- Well Location
- Well Discharge to Detention Basins
- Canal Road Access
- Rice Road Access (light-duty vehicles only)
- Drill Rig Footprint
- Spreading/Drying Area for Drill Cuttings
- Detention Basins for Development Water Infiltration
- Project Construction Footprint
- Parcel Boundary

MAP EXTENT:

0 125 250
FEET

Source: Google Earth Imagery 7/8/23
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

PROJECT NAME:
CASITAS MUNICIPAL WATER DISTRICT
MATILIJA GROUNDWATER
VENTURA COUNTY, CA

PROJECT NUMBER: 2402-4201

DATE: December 2024

SITE PLAN

FIGURE 1

Z:\GIS Projects\GIS Maps\GIS Data\Project Specific\Casitas Municipal Water District\Casitas Municipal Water District\Casitas Municipal Water District apn\Site Plan_12/9/2024

N

LEGEND:

- Well Location
- Well Site Access Route

MAP EXTENT:

0 980 1,960
FEET

Source: Esri Online Imagery Basemap, County of Ventura
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

PROJECT NAME: CASITAS MUNICIPAL WATER DISTRICT
MATILIJA GROUNDWATER
VENTURA COUNTY, CA

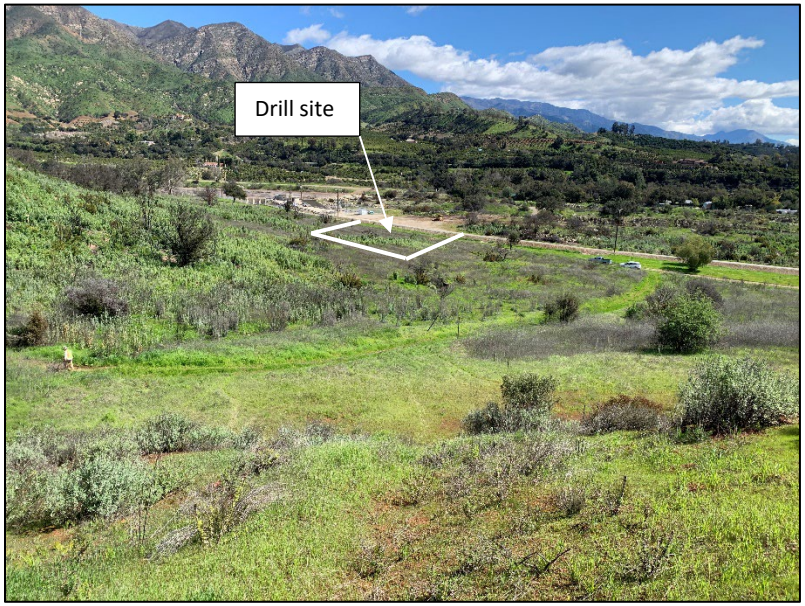
PROJECT NUMBER: 2402-4201

DATE: December 2024

WELL SITE ACCESS ROUTE MAP

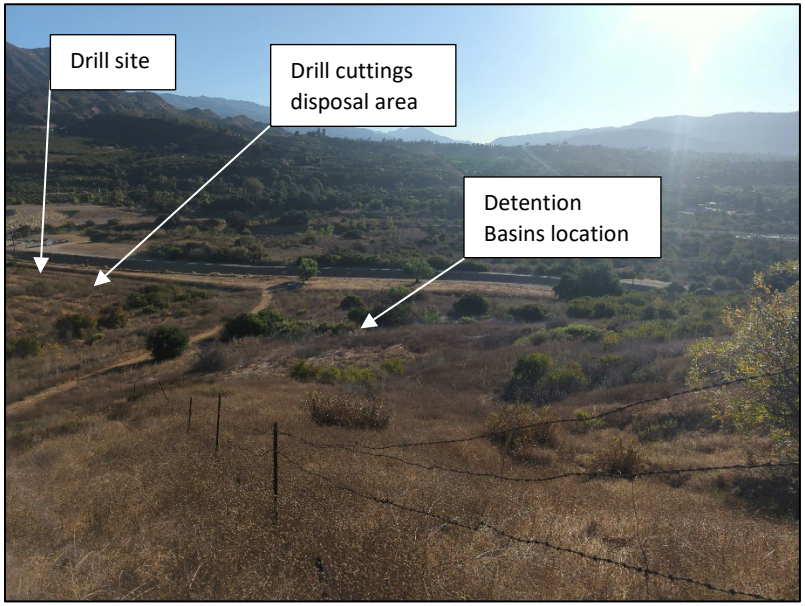
FIGURE 2

Z:\GIS Projects\GIS Maps\GIS Data\Project Specific\Casitas Municipal Water District\Casitas Municipal Water District\Casitas Municipal Water District.aprx\Well Site Access Route Map, 12/9/2024



a. Drill site, facing northeast

b. Detention basins site, facing south



c. Project site overview, facing east-northeast

d. Project site from the Oso Trailhead, facing northwest

SITE PHOTOGRAPHS
FIGURE 3

A variety of construction vehicles would likely be required in addition to passenger cars and pick-up/work trucks and are identified as follows:

- Gravel truck
- Well cementing trucks
- Flatbed truck
- Welding truck
- Tank/material hauling truck
- Fuel truck

2.2.3 Construction Personnel

Depending on the phase of drilling, contractor staffing for drilling would range between three and five employees working in three shifts of 8 hours each or two shifts of 12-hours each. Hydrologists would be constantly monitoring and logging drilling operations from beginning to completion. Hydrologist staffing is anticipated to be three employees for each of three 8-hour shifts.

2.2.4 Construction Schedule

Well drilling would require about six weeks and is tentatively scheduled for summer 2025. Drilling of the conductor and surface casings is anticipated to take three weeks (21 workdays) and drilling the test well would require approximately 21 additional workdays. Operations would continue 24 hours per day, seven days per week (unless an unforeseen problem or obstacle is encountered). The well would then be developed and capped with valves and fitted with temperature and pressure gauges and monitored for about two weeks to ensure stable conditions and gather design data.

Design, bidding and award of the contract for the well head piping would require about six months. After the contractor is selected, fabrication and delivery of the valves, piping and stilling well is expected to take about six months.

Initial construction activities for the test well boring include mobilizing of temporary drilling equipment and supplies, minor brush clearing and grubbing, materials storage, set-up of support equipment such as fuel tank, generators, mud pits and lighting. After completion and capping, and barring any unforeseen conditions, the well would remain undisturbed until construction of the wellhead plumbing begins in a subsequent phase.

Construction of the test well head piping would require about 30 workdays over about four months. Activities at this stage would include materials delivery, storage onsite, excavation of about 25 cubic yards of soil (to be spread in the same area used for the cuttings), the forming and pouring of the thrust block and equipment pads, and assemblage of the plumbing. Installation of the permanent wellhead piping and apputenances, thrust block, pads and fencing would take an estimated three months.

2.2.5 Construction-related Vehicle Trips

Staffing-related, round-trip vehicles for 24-hour workdays are estimated as one or two work trucks three times/day; one or two passenger cars three times per day; one passenger car per day. In addition to 24-hour day trips, on a weekly basis, four passenger car trips; and one sanitation facilities maintenance vehicle trip would be required.

Construction materials and equipment transport would require six to eight heavy-duty truck trips to deliver and load materials during mobilization and demobilization. One fuel supply or other materials delivery truck trip would be required daily throughout the construction period. Cementing operations would require one truck and support crew of four vehicles on two days.

2.3 PROJECT OPERATION

Post construction activities and maintenance would consist of monthly testing of the quality and quantity of the water produced. The Project would be limited to the installation of a test/monitoring well only and would not be used for indefinite groundwater production, therefore it would require minimal maintenance. Exercising (manual) of valves would take place during monthly testing.

All produced groundwater would be discharged to a series of detention basins for infiltration and evaporation. No discharge would occur to the Canal or other surface waters.

Initial testing (sampling and flow testing) is estimated to be complete after the first-quarter sampling of the installed monitoring well. Post-initial testing activities would include monitoring of pressures associated with precipitation and other environmental conditions.

Should the early test well data indicate a permanent well is feasible, long-term monitoring would go on for decades and is expected to aid in planning for potential future emergency water sources.

Should the well fail due to circumstances such as encountering insurmountable quantities of oil or gas, it would be destroyed in compliance with Ventura County requirements.

3.0 ENVIRONMENTAL CHECKLIST AND ANALYSIS

The evaluation of environmental impacts provided in this Initial Study is based on the impact questions contained in Appendix G of the State CEQA Guidelines; these questions, which are included in an impact assessment matrix for each environmental category (Aesthetics, Agriculture/Forest Resources, Air Quality, Biological Resources, etc.), are “intended to encourage thoughtful assessment of impacts.” Each question is followed by a check-marked box with column headings that are defined below.

- **Potentially Significant Impact.** This column is checked if there is substantial evidence that a Project-related environmental effect may be significant. If there are one or more “Potentially Significant Impacts,” a Project Environmental Impact Report (EIR) would be prepared.

- **Less than Significant with Mitigation.** This column is checked when the Project may result in a significant environmental impact, but the incorporation of identified Project revisions or mitigation measures would reduce the identified effect(s) to a less than significant level.
- **Less than Significant Impact.** This column is checked when the Project would not result in any significant effects. The Project's impact is less than significant even without the incorporation of Project-specific mitigation measures.
- **No Impact.** This column is checked when the Project would not result in any impact in the category or the category does not apply.

Detailed descriptions and analyses of impacts from Project activities and the basis for significance determinations are provided for each environmental factor on the following pages, beginning with Section 3.1, Aesthetics.

The environmental factors checked below would be potentially affected by this Project; a checked box indicates that at least one impact would be "Less than Significant with Mitigation".

☐ Aesthetics	☐ Agriculture and Forest 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/Traffic	☐ Tribal Cultural Resources
☐ Utilities and Service Systems		

3.1 AESTHETICS

AESTHETICS – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
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 the site and its surroundings?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Setting. The County of Ventura 2040 General Plan Background Report identifies scenic resource areas. Protection of inland Scenic Resource Areas is generally accomplished through the Scenic Resource Protection overlay zone of the Non-coastal Zoning Ordinance. The County's natural visual resources are generally composed of mountain ridgelines, waterbodies, exposed rock formations, varied and unique coastline, vegetation and waterways.

Lake Casitas and adjacent land, among other lakes in the County, are identified for special protection as scenic resource areas. Additionally, a ridgeline located approximately 0.5 miles northwest of the Project site is included in the Scenic Resource Protection overlay zone.

There are no designated scenic highways in the Project area. However, the segment of State Route 33 located approximately 0.5 miles east of the Project site is identified as an eligible State scenic highway. The Project site is not visible from State Route 33 due to intervening topography, roadside trees and other vegetation.

The Project site is undeveloped open space and is visually characterized by a mixture of native scrub and non-native weedy vegetation (see Section 3.4, Biological Resources for detail) and natural topography which includes level ground and sloping terrain. Photographs of the Project site are provided in Figure 3. Additionally, the Project site is adjacent to the open space of Los Padres National Forest which is managed in part for its recreational value.

The Project site can be viewed from residential areas to the east, across the Ventura River (e.g. residences on Oso Road). The Project site is not visible from public viewing areas including Oso Road, Rice Road and trails within the Ventura River Preserve (Kennedy Ridge Trail, Rice Canyon Trail). The Project site can be viewed from the Ventura River Preserve Oso Trailhead in the distance (0.3 miles), but is mostly obscured by intervening topography and vegetation (see Figure 3.d).

a. The Project site is not within the County-designated Lake Casitas Scenic Viewshed area. However, it is located near land designated as regional open space and used for recreational purposes. In general, the public values the aesthetics of natural open space. Some of the open space in the Project area includes public trails (e.g., trails operated by the Ojai Valley Land Conservancy).

During the construction period, the drill rig mast would be visible from public viewing areas such as portions of Oso Road, Rice Road and public trails in the Ventura River Preserve trail since it would be up to 142 feet tall when fully extended. Additionally, the removal of vegetation to accommodate Project activities would temporarily change the aesthetic character of the Project site. However, drilling would only last approximately six weeks and overall construction activities would be temporary. Aesthetic impacts associated with the removal of vegetation and introduction of construction equipment and material are considered adverse, but less than significant due to the distance to the nearest public viewing area (0.3 miles, Oso Trailhead).

b. The Project site is not visible from a designated scenic highway or an eligible State scenic highway (State Route 33) and would not affect the visual quality of public views.

c. See checklist item a.

d. The Project site and nearby areas within unincorporated Ventura County are within a County-designated Dark Sky Overlay Zone. This indicates the high value placed on maintaining dark nighttime skies within this area. The regulations relating to the Dark Sky Overlay Zone pertain to long-term light sources at area land uses. Temporary light sources such as construction lighting are exempt. Currently, some night lighting exists in the Project area, including at residences east of the River and at the Robles Diversion. The Project would require 24-hour per day, seven days per week drilling operations for a period of about six weeks. The Project site and drill rig would be illuminated to allow for safe work. Due to the short-term nature of this lighting and distance to residences (at least 1,200 feet), lighting impacts are considered less than significant.

3.2 AGRICULTURE AND FORESTRY

AGRICULTURE AND FOREST RESOURCES[1] - Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Natural 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 Pub. Resources Code, § 12220, subd. (g)), timberland (as defined by Pub. Resources Code, § 4526), or timberland zoned Timberland Production (as defined by Gov. Code, § 51104, subd. (g))?	☐	☐	☐	☒
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?	☐	☐	☐	☒

[1] In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

a. Based upon a review of soils mapping available online from the United States Department of Agriculture, Natural Resource Conservation Service, soils at the Project site are Ojai stony fine sandy loam (two to 15 percent slopes, eroded). This soil has an irrigated soil capability class rating of 3, which has severe limitations that reduce the choice of plants or that require moderate conservation practices. The nearest important farmland as mapped by the California Department of Conservation is Farmland of Statewide Importance located approximately 0.4 miles to the east-southeast. The proposed Project would not result in the conversion of any important farmlands.

b. The Project site is zoned Open Space and is not used for farming. The proposed Project would not conflict with any nearby agricultural uses or lands enrolled in Williamon Act contracts.

c. The Project site is owned by CMWD and is periodically used as a location for the deposition of sediment removed from the Robles Facility forebay. The nearest forest land is located is located within the Los Padres National Forest at least 0.5 miles north of the Project site. The Project would not impact land zoned for forest use. No impact would result for this issue on a project-specific or cumulative basis.

d. See c. above.

e. The location of a new potable water test/monitoring well at the Project site does not include any elements that would result in the conversion of farm or forest land. No impact would result for this issue on a project-specific or cumulative basis.

3.3 AIR QUALITY

AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
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?	☐	☐	☐	☒

Setting. The Project site is located in Ventura County which is part of the South-Central Coast Air Basin. The topography and climate of Southern California combine to make the basin an area of high air pollution potential. Ozone and particulate matter 10 microns or less (PM_{10}) are of particular interest in Ventura County because State air quality standards for these pollutants are regularly exceeded.

Ventura County has been designated by the California Air Resources Board (CARB) and the United States Environmental Protection Agency (EPA) as unclassified or in attainment of all State and Federal criteria ambient air pollutant standards with the exception of:

- Federal 2015 8-hour ozone standard: non-attainment, classified as “serious”.
- California 1-hour ozone standard: non-attainment.
- California PM_{10} standard: non-attainment.

According to the baseline (2018) air pollutant emissions inventory presented in the Ventura County Air Pollution Control District (VCAPCD) 2022 Air Quality Management Plan, mobile sources (on-road vehicles, trains, aircraft, marine vessels, farm equipment) account for about 44 percent of the Reactive Organic Compound (ROC) emissions and 92 percent of the NO_x emissions in the County.

The Federal government first adopted the Clean Air Act (CAA) in 1963 to improve air quality and protect citizens’ health and welfare, which required implementation of the National Ambient Air Quality Standards (NAAQS). The NAAQS are revised and changed when scientific evidence indicates a need. The CAA also requires each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The CAA Amendments of 1990 added requirements for states with non-attainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies.

Pursuant to the CAA, State and local agencies are responsible for planning for attainment and maintenance of the NAAQS. The USEPA classifies air basins (i.e., distinct geographic regions) as either “attainment” or “non-attainment” for each criteria pollutant, based on whether the NAAQS have been achieved. Some air basins have not received sufficient analysis for certain criteria air pollutants and are designated as “unclassified” for those pollutants. The VCAPCD and CARB are the responsible agencies for providing attainment plans and for demonstrating attainment of these standards within the Project area.

The VCAPCD completed the 2016 update to the County’s Air Quality Management Plan (AQMP) on February 14, 2017 to build on past AQMPs, including a strategy to attain the 2008 Federal 8-hour ozone standard, photochemical modeling to demonstrate the strategy would ultimately result in attainment of the Federal ozone standard, and a demonstration that reasonable further progress towards attainment of the Federal 8-hour ozone standard would occur. The 2016 AQMP includes control strategies to be implemented both locally (Ventura County) and Statewide to reduce air pollutant emissions as needed to attain the Federal 8-hour ozone standard. The 2016 AQMP includes four new stationary source control measures to be adopted as rules to facilitate attainment of the Federal 8-hour ozone standard.

The VCAPCD adopted a 2022 AQMP on December 13, 2022 which includes emission control measures carried forward from previous Ventura County AQMPs plus new and further study emissions control measures. It also includes a transportation conformity budget that sets the maximum amount of on-road motor vehicle emissions produced while continuing to demonstrate progress towards attainment. Ventura County is anticipated to attain the 2015 Federal 8-hour ozone standard (0.070 ppm) by 2027 (VCAPCD, 2022).

The California Clean Air Act (CCAA), signed into law in 1988, requires all areas to achieve and maintain attainment with the California Ambient Air Quality Standards (CAAQS) by the earliest possible date. The CCAA, enforced by CARB, requires that each area exceeding the CAAQS develop a plan aimed at achieving those standards. The California Health and Safety Code, Section 40914, requires air districts to design a plan that achieves an annual reduction in district-wide emissions of 5 percent or more, averaged every consecutive 3-year period. To satisfy this requirement, the local air districts are required to develop and implement air pollution reduction measures, which are described in their clean air plans and incorporated into the SIP, and outline strategies for achieving the CAAQS for criteria pollutants for which the region is classified as non-attainment.

In 1991, the VCAPCD adopted an AQMP to facilitate attainment of the California ozone standards. The CCAA mandates that every three years areas update their clean air plans to attain the State ozone standard. The 2022 AQMP indicates Ventura County is making significant progress towards attaining the California 1-hour ozone standard. The “every feasible measure” analysis conducted for the update identified five existing VCAPCD rules for enhancement and three possible new control measures to facilitate progress toward attainment.

The Portable Equipment Registration Program (PERP) establishes a uniform State-wide program to regulate portable engines and portable engine-driven equipment units. The term “portable” is defined as not residing at a location for more than 12 consecutive months. Once registered in the PERP, engines and equipment units may operate throughout California without the need to obtain individual permits from local air districts. To be eligible for the PERP, an engine must be certified to the current emission tier (non-road, on-highway or marine). The PERP does not apply to self-propelled equipment but would apply to engines used in stationary construction equipment.

VCAPCD rules and regulations applicable to activities to be conducted under the proposed Project are limited to potential nuisances (typically dust and odors):

- Rule 51 (Nuisance): A person shall not discharge from any source whatsoever such quantities of air contaminants or other material in violation of Section 41700 of the Health and Safety Code which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety or any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property.
- Rule 55 (Fugitive Dust): This Rule regulates visible dust beyond the property line, opacity (amount of light blocked by a dust cloud), and track-out of soil onto adjacent roads and applies to construction activities. This Rule applies to dust generated by construction.

The air quality of Ventura County is monitored by a network of five stations, operated by the CARB and the VCAPCD. The Ojai air quality monitoring station is the nearest to the Project site, located approximately 3.7 miles to the east.

Table 1 lists the monitored maximum concentrations and number of exceedances of air quality standards for the years 2021 through 2023. As shown in Table 1, ozone concentrations monitored at the Ojai station did not exceed the State 1-hour standard, but the State and Federal 8-hour ozone standard was exceeded an average of one day per year from 2021 through 2023. $PM_{2.5}$ concentrations did not exceed the State 24-hour standard at the Ojai monitoring station from 2021 through 2023.

Table 1. Air Quality Summary (Ojai Monitoring Station)

Parameter	Standard	Year		
		2021	2022	2023
Ozone (O_3) – parts per million				
Maximum 1-hour concentration monitored (ppm)		0.078	0.079	0.076
Number of days exceeding State standard	0.095 ppm	0	0	0
Maximum 8-hour concentration monitored (ppm)		0.068	0.073	0.068
Number of days exceeding State & Federal 8-hour standard	0.070 ppm	0	3	0
Particulate Matter less than 2.5 microns ($PM_{2.5}$) – micrograms per cubic meter				
Maximum sample ($\mu g/m^3$)		20.6	15.5	20.4
Number of samples exceeding Federal 24-hour standard	35 $\mu g/m^3$	0	0	0

Significance Thresholds. The VCAPCD has prepared Air Quality Assessment Guidelines (2003) for the preparation of air quality impact analyses. The Guidelines indicate that projects within the County would have a significant impact on the environment if they would:

- Result in daily emissions exceeding 25 pounds of reactive organic compounds (ROC) or oxides of nitrogen (NOx).
- Cause a violation or make a substantial contribution to a violation of an ambient air quality standard.
- Directly or indirectly cause the existing population to exceed the population forecasts in the most recently adopted AQMP.
- Be inconsistent with the Ventura County Air Quality Management Plan and emit greater than 2 pounds per day ROC or NOx.

Due to the temporary, short-term nature of construction emissions, the VCAPCD does not apply the quantitative emissions thresholds for ROC and NOx to construction activities. However, the VCAPCD's Air Quality Assessment Guidelines state that construction emissions should be mitigated if ROC or NOx emissions from heavy-duty construction equipment is anticipated to exceed 25 pounds per day.

Impacts and Mitigation.

a. Projects that cause local populations to exceed population forecasts in the AQMP are considered inconsistent with the AQMP, as exceeding population forecasts can result in the generation of emissions beyond those which have been projected in the AQMP. The proposed Project would not result in any change in land use that may affect population levels. Employment opportunities associated with drilling the test/monitoring well and installation of well head components would be very short-term (about 80 workdays) and would not entice any workers to move to Ventura County. In addition, emissions reduction strategies of the AQMP would not apply to the proposed Project.

b. Short-Term. Air pollutant emissions would be generated during the installation of the test/monitoring well and could affect the attainment of State and Federal ozone standards. Emissions of concern are NOx and ROC as these pollutants may result in ozone formation in the atmosphere. Project-related NOx and ROC pollutant sources would include diesel-fueled electrical generators, lighting plant diesel engines (4), heavy equipment used to prepare the site and handle materials (drill pipe, casing, mud, cement) and on-road motor vehicles to transport materials, workers and contractors.

Project construction emissions were estimated using the OFFROAD 2021 and EMFAC 2021 emissions estimation models developed by the CARB, based on construction occurring in 2025. Peak day Project emissions (during well drilling) would be 170.6 pounds NO_X and 22.3 pounds ROC. Although peak day NO_X emissions would exceed the 25 pounds per day threshold established by the VCAPCD, due to the temporary, short-term nature of construction emissions, the VCAPCD does not apply the quantitative emissions thresholds for ROC and NO_X to construction activities. The VCAPCD does require that emission reduction measures be implemented during construction activities to reduce exhaust emissions and fugitive dust generation. Therefore, the following standard VCAPCD construction emissions reduction measures are provided as mitigation.

AQ-1 The following emissions reduction measures shall be implemented during site preparation, well drilling and well head piping and equipment installation.

- The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excessive amounts of dust.
- Pre-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations. Application of water (preferably reclaimed, if available) should penetrate sufficiently to minimize fugitive dust during grading activities.

- All trucks shall be required to cover their loads as required by California Vehicle Code §23114.
- All graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally-safe soil stabilization materials, and/or roll-compaction as appropriate. Watering shall be done as often as necessary and reclaimed water shall be used whenever possible.
- Graded and/or excavated inactive areas of the construction site shall be monitored at least weekly for dust stabilization. Soil stabilization methods, such as water and roll-compaction, and environmentally-safe dust control materials, shall be periodically applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area shall be seeded and watered until plant growth is evident, or periodically treated with environmentally-safe dust suppressants, to prevent excessive fugitive dust.
- Signs shall be posted on site limiting traffic to 15 miles per hour or less.
- During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earth moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on site activities and operations from being a nuisance or hazard, either off site or on site. The site superintendent/supervisor shall use their discretion in conjunction with the VCAPCD in determining when winds are excessive.
- Adjacent streets and roads shall be swept at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.
- Personnel involved in grading operations, including contractors and subcontractors, shall be advised to wear respiratory protection in accordance with California Division of Occupational Safety and Health regulations.
- Material stockpiles shall be enclosed, covered, stabilized, or otherwise treated as needed to prevent blowing fugitive dust off site.
- All Project construction and site preparation operations shall be conducted in compliance with all applicable VCAPCD Rules and Regulations with emphasis on Rule 50 (Opacity), Rule 51 (Nuisance), Rule 55 (Fugitive Dust) and Rule 10 (Permits Required).
- Off-road construction equipment shall utilize engines certified to the Federal Emissions Standard Category of Tier 3 or Tier 4, if available.

- Signs displaying the VCAPCD complaint line telephone number (805/303-3700 during business hours; 805/303-3708 after hours) shall be posted in a prominent location visible to the public.

The VCAPCD's Air Quality Assessment Guidelines indicate inconsistency with the AQMP is considered a significant cumulative air quality impact. The Project is consistent with the AQMP, such that a significant cumulative impact would not occur.

Long-Term. Air pollutant emissions would be generated by periodic motor vehicle trips by CMWD staff and consultants associated with well testing and monitoring. Peak day long-term emissions (well monitoring, 4 one-way trips to/from the CMWD's offices) would be 0.010 pounds NOx and 0.007 pounds ROC. As such, NOx and ROC emissions generated by well monitoring would be negligible and not exceed the 25 pounds per day threshold established by the VCAPCD.

c. Some land uses are considered more sensitive to air pollution than others due to population groups and/or activities involved. Sensitive population groups include children, the elderly, the acutely ill and the chronically ill, especially those with cardio-respiratory diseases. Residential areas are also considered to be sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. The nearest residence to the Project site is located approximately 1,200 feet to the east. Schools, hospitals or elderly residential facilities are located at least 1.5 miles from the Project site.

The combustion of diesel fuel in truck engines (as well as other internal combustion engines) produces exhaust containing a number of compounds and particulates that have been identified as hazardous air pollutants by EPA and toxic air contaminants by the CARB. Diesel engines associated with the Project would be located at ground level and dispersed around the site, which would facilitate dispersion by winds blowing down the Ventura River valley (more or less north-south). Data from the Ojai monitoring station indicate summer winds (when drilling would likely occur) are generally over 5 mph, which would facilitate dispersion of air pollutants. Overall, the potential for the Project to expose sensitive receptors to substantial concentrations of diesel exhaust is considered a less than significant impact. There are no other cumulative projects near the proposed Project site that together with the Project would expose sensitive receptors to substantial pollutant concentrations on a cumulative basis.

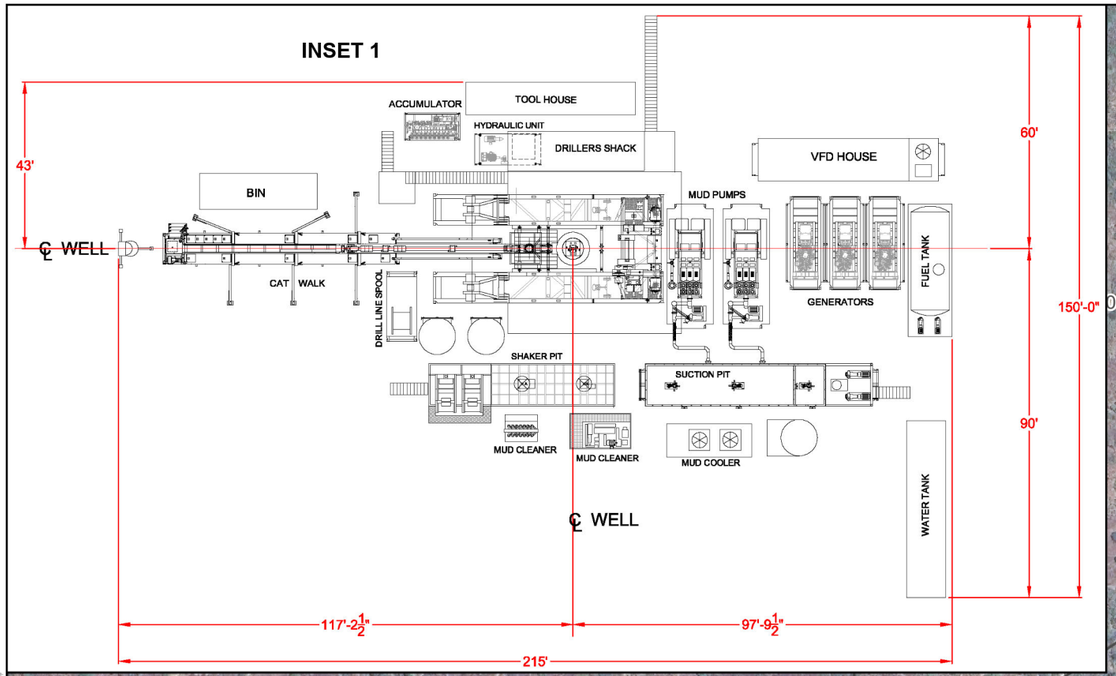
d. Scattered residences are located approximately 0.25 miles to the east, while the Meiners Oaks community is located approximately one mile to the southeast of the Project site. Odors associated with drilling and operation of the proposed potable water test/monitoring well would be limited to diesel exhaust. As discussed above, Project-related diesel exhaust would be adequately dispersed such that it would not cause injury, detriment, nuisance or annoyance to a considerable number of persons. There are no other cumulative projects near the proposed Project site that together with the Project would expose a substantial number of people to other emissions such as odors.

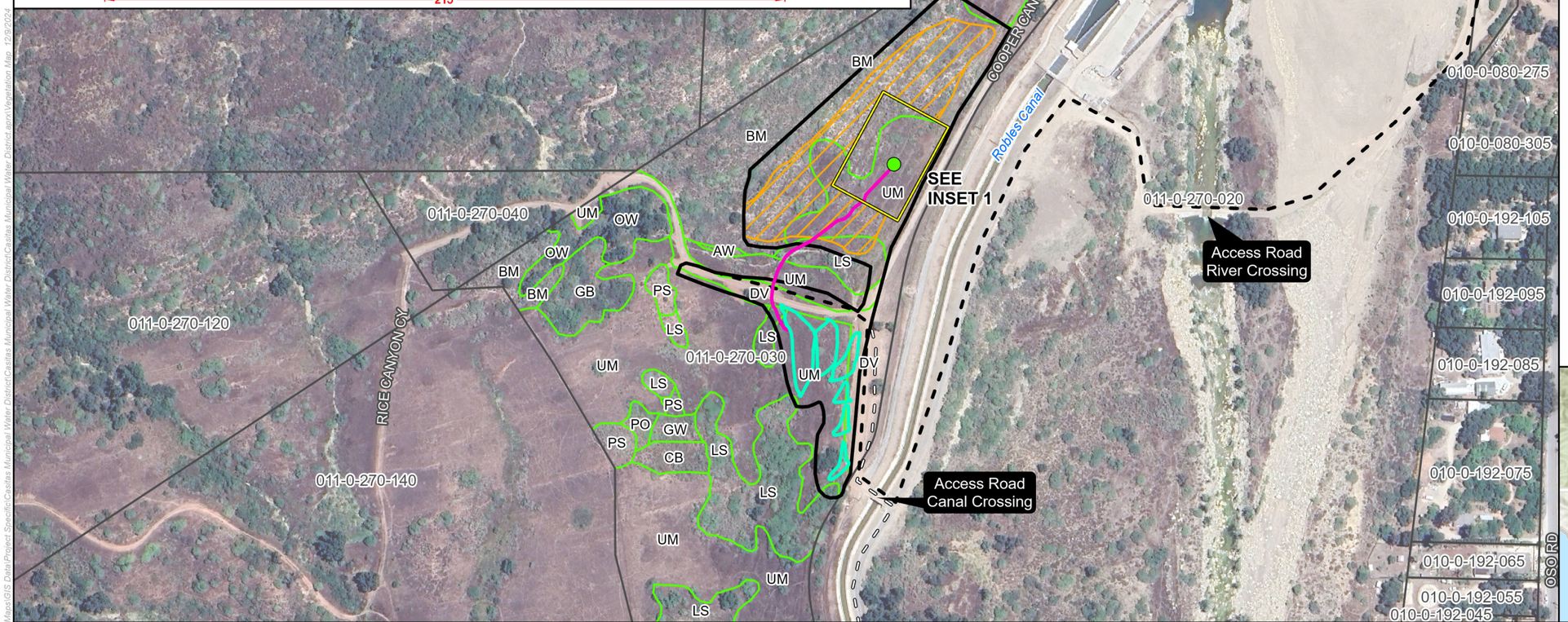
3.4 BIOLOGICAL RESOURCES

BIOLOGICAL RESOURCES – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
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, 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?	☐	☐	☐	☒

Setting. A biological field survey of the Project site was conducted by Padre Associates, Inc. Senior Biologist Matt Ingamells on March 8, 2019. The proposed access road crossing of the Ventura River was surveyed on April 9, 2019. A follow-up biological field survey of the well site and adjacent areas was conducted by Padre biologist Zack Abbey on October 31, 2024. The Project site was entirely burned during the Thomas Fire in December 2017; but has mostly recovered since that time. Most of the Project site has been previously disturbed by historic cattle grazing and periodic spreading of sediments removed from the Robles Facility forebay. The Ventura River access road crossing had been disturbed by recent storm flows, and periodic maintenance of the channel downstream of the Robles Facility.

The Project site and adjacent areas support ten plant communities; arroyo willow thickets, bush mallow scrub, coyote brush scrub, green bark ceanothus chaparral, giant wild rye grassland, laurel sumac scrub, coast live oak woodland, poison oak scrub, purple sage scrub and upland mustards. A vegetation map is provided as Figure 4





LEGEND:

- Well Location
- Well Discharge to Detention Basins
- Canal Road Access
- Rice Road Access (light-duty vehicles only)
- Drill Rig Footprint
- Spreading/Drying Area for Drill Cuttings
- Detention Basins for Development Water Infiltration
- Project Construction Footprint
- Parcel Boundary
- **Vegetation Type**
  - AW - Arroyo willow thicket
  - BM - Bush mallow scrub
  - CB - Coyote brush scrub
  - DV - Developed (roads, adjacent maintained areas)
  - GB - Green bark ceanothus chaparral
  - GW - Giant wild rye grassland
  - LS - Laurel sumac scrub
  - OW - Coast live oak woodland
  - PO - Poison oak scrub
  - PS - Purple sage scrub
  - UM - Upland mustards

MAP EXTENT:

0 125 250
FEET

Source: Google Earth Imagery 7/8/23
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

PROJECT NAME: CASITAS MUNICIPAL WATER DISTRICT MATILIJA GROUNDWATER VENTURA COUNTY, CA
PROJECT NUMBER: 2402-4201
DATE: December 2024

VEGETATION MAP

FIGURE 4

Z:\GIS Projects\GIS Maps\GIS Data\Project Specific\Casitas Municipal Water District\Casitas Municipal Water District\Casitas Municipal Water District.aprx\Vegetation Map_12/9/2024

A total of 67 vascular plant species were identified during the field survey of the Project site and vicinity. Plants observed within the Project site consisted of 46 (69 percent) native taxa and 21 (31 percent) non-native, naturalized taxa. The high proportion of non-native plant species reflects the disturbed nature of the site. Seventeen of 21 non-native plant species are listed as invasive by the California Invasive Plant Council, including one species rated as highly invasive, nine species rated as moderately invasive, and seven species rated as limited invasiveness.

Wildlife observed at the Project site and vicinity included fence lizard, side-blotched lizard, California scrub-jay, bushtit, white-crowned sparrow, mourning dove, northern flicker, California towhee, Lincoln's sparrow, California quail, wrentit, yellow-rumped warbler, red-tailed hawk, Allen's hummingbird, common raven, black phoebe, killdeer, Cassin's kingbird, Bewick's wren, mallard, Nuttall's woodpecker, turkey vulture, loggerhead shrike, American crow, greater yellow legs, blue-gray gnatcatcher, sharp-shinned hawk, mule deer, black beer (tracks), coyote, Audubon's cottontail and California ground squirrel.

Significance Thresholds. The following significance thresholds are taken from the Ventura County Initial Study Assessment Guidelines. A project will have a direct or indirect physical impact to a plant or animal species if a project, directly or indirectly:

- Reduces a species' population,
- Reduces a species' habitat,
- Increases habitat fragmentation, or
- Restricts reproductive capacity.

The determination of whether a project's impact is significant or not shall be based on both the current conservation status of the species affected and the severity or intensity of impact caused by the project. If a project's impact is severe or intense, it may cause a population of a more common species to decline substantially or drop below self-sustaining levels, which would be considered a significant impact.

The following types of impacts to sensitive plant communities (critically imperiled, imperiled or vulnerable to extinction or extirpation) are considered potentially significant:

- Construction, grading, clearing, or other activities that would temporarily or permanently remove sensitive plant communities.
- Indirect impacts resulting from project operation at levels that would degrade the health of a sensitive plant community.

Potentially significant project impacts to waters and wetlands include:

- Removal of vegetation, grading, obstruction or diversion of water flow, change in velocity, siltation, volume of flow or runoff rate, placement of fill, placement of structures, construction of a road crossing, placement of culverts or other underground piping and/or any disturbance of the substratum.
- Disruptions to wetland or riparian plant communities that would isolate or substantially interrupt contiguous habitats, block seed dispersal routes, or increase vulnerability of wetland species to exotic weed invasion or local extirpation.

- Interference with ongoing maintenance of hydrological conditions in a water or wetland.
- The project does not provide an adequate buffer for protecting the functions and values of existing waters or wetlands.

Potentially significant project impacts to habitat connectivity include:

- A habitat connectivity feature (e.g., a linkage, corridor, chokepoint or stepping stone) would be severed, substantially interfered with, or potentially blocked.
- Wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction would be prevented or substantially interfered with.
- Wildlife would be forced to use routes that endanger their survival. For example, constraining a corridor for mule deer or mountain lion to an area that is not well-vegetated or that runs along a road instead of through a stream corridor or along a ridgeline.
- Lighting, noise, domestic animals, or other indirect impacts that could hinder or discourage fish and/or wildlife movement within habitat connectivity feature (e.g., a linkage, corridor, chokepoint or stepping stone) would be introduced.
- The width of linkage, corridor or chokepoint would be reduced to less than the sufficient width for movement of the target species (the species relying upon the connectivity feature). The adequacy of the width shall be based on the biological information for the target species; the quality of the habitat within and adjacent to the linkage, corridor, or chokepoint; topography; and adjacent land uses.

Impacts and Mitigation.

a. Table 2 lists special-status species observed or reported within five miles of the Project site based on the results of the biological field surveys, and review of the California Natural Diversity Data Base (CNDDB), California Native Plant Society (CNPS) on-line rare plant inventory and the Consortium of California Herbaria data base.

Table 2. Special-Status Species Reported within 5 Miles of the Project Site

Common Name *(Scientific Name)*	Status	Nearest Reported Location to the Project Site
Coast live oak (*Quercus agrifolia*)	TPR	One tree occurs adjacent to the construction footprint, but would be avoided
Miles milk-vetch (*Astragalus didymocarpus milesianus*)	List 1B	Ojai area, ~5 miles to the northeast (CNDDB, 2024)
Brewer's calandrinia (*Calandrinia breweri*)	List 4	Kennedy Canyon, 0.6 miles to the northwest (Consortium of California Herbaria, 2024)
Pale yellow layia (*Layia heterotricha*)	List 1B	Stewart Canyon, 2.8 miles to the northeast (CNDDB, 2024)

Common Name ***(Scientific Name)***	**Status**	**Nearest Reported Location to the Project Site**
Catalina mariposa lily (*Calochortus catalinae*)	List 4	Kennedy Canyon, 0.6 miles to the northwest (Consortium of California Herbaria, 2024)
Club-haired mariposa lily (*Calochortus clavatus* var. *clavatus*)	List 4	Oak View, 5 miles to the south (Consortium of California Herbaria, 2024)
Late flowered mariposa lily (*Calochortus fimbriatus*)	List 1B	Near Pratt Trail, 2.3 miles to the northeast (CNDDB, 2024)
Plummer's mariposa lily (*Calochortus plummerae*)	List 4	Near Foothill Trail, 3.5 miles to the east (CNDDB, 2024)
Baja navarretia (*Navarretia peninsularis*)	List 1B	Near Wills Canyon Road, 1.4 miles to the southwest (CNDDB, 2024)
Ojai navarretia (*Navarretia ojaiensis*)	List 1B	Near Villanova School, 3.0 miles to the southeast (CNDDB, 2024)
Salt spring checker-bloom (*Sidalcea neomexicana*)	List 2B	Oak View, ~5 miles to the south (CNDDB, 2024)
White-veined monardella (*Monardella hypoleuca ssp. hypoleuca*)	List 1B	Wills Canyon, 0.9 miles to the southwest (CNDDB, 2024)
Chaparral nolina (*Nolina cismontana*)	List 1B	Santa Ana Valley, 2.7 miles to the southwest (CNDDB, 2024)
Ojai fritillary (*Fritillaria ojaiensis*)	List 1B	Stewart Canyon, 2.8 miles to the northeast (CNDDB, 2024)
Small-flowered morning glory (*Convolvulus simulans*)	List 4	Near Lake Casitas, 3.9 miles to the southwest (Consortium of California Herbaria, 2024)
California satin-tail (*Imperata brevifolia*)	List 2B	Matilija Canyon, 1.4 miles to the north (CNDDB, 2024)
Mesa horkelia (*Horkelia cuneata* var. *puberula*)	List 1B	Near Meiners Oaks, 2.0 miles to the southeast (Consortium of California Herbaria, 2024)
Southern California black walnut (*Juglans californica*)	List 4	Observed along southern access road during 2019 biological survey
Hubby's phacelia (*Phacelia hubbyi*)	List 4	Ojai Valley (Consortium of California Herbaria, 2024)
Sanford's arrowhead (*Sagittaria sanfordii*)	List 1B	Mirror Lake, 2.8 miles to the south (Consortium of California Herbaria, 2024)
American bumblebee (*Bombus pensylvanicus*)	IUCN-VU	Ojai area, 2.2 miles to the east (CNDDB, 2024)
Crotch's bumblebee (*Bombus crotchii*)	SC	Wheeler Springs area, 3.0 miles to the north (CNDDB, 2024)
Southern California Coast steelhead (*Oncorhynchus mykiss*)	FE, SC	Ventura River, 0.1 miles to the east (CNDDB, 2024)

Common Name *(Scientific Name)*	Status	Nearest Reported Location to the Project Site
Arroyo chub (*Gila orcuttii*)	CSC	Ventura River, 0.1 miles to the east (Rincon Consultants, 2021)
California red-legged frog (*Rana draytonii)*	FT, CSC	Matilija Creek, 2.4 miles to the northwest (CNDDB, 2024)
Western pond turtle (*Actinemys pallida*)	CSC, PT	Ventura River, 0.2 miles to the northeast (Rincon Consultants, 2021)
Coast horned lizard (*Phrynosoma blainvillii*)	CSC	Near the Canal, 1.7 miles to the southwest (CNDDB, 2024)
Coast patch-nosed snake (*Salvadora hexalepis virgultea*)	CSC	Near Matilija Lake, 2.1 miles to the northwest (CNDDB, 2024)
San Bernardino ring-neck snake (*Diadophis punctatus modestus*)	SA	Near Stewart Creek, 3.0 miles to the southeast (CNDDB, 2024)
Two-striped garter snake (*Thamnophis hammondii*)	CSC	Matilija Creek, 1.6 miles to the northwest (CNDDB, 2024)
Nuttall's woodpecker (*Dryobates nuttallii*)	BCC	Observed during 2024 biological survey
Allen's hummingbird (*Selasphorus sasin*)	BCC	Observed during 2024 biological survey
Wrentit (*Chamaea fasciata*)	BCC	Observed during 2024 biological survey
Loggerhead shrike (*Lanius ludovicianus*)	CSC (nesting)	Observed during 2024 biological survey
Sharp-shinned hawk (*Accipiter striatus*)	WL (nesting)	Observed during 2024 biological survey
Burrowing owl (*Athene cunicularia*)	CSC	Lake Casitas (wintering), 4.4 miles to the south-southwest (CNDDB, 2024)
California condor (*Gymnogyps californianus*)	FE, SE, FP	Matilija condor area, 5 miles to the northwest (CNDDB, 2024)
Least Bell's vireo (*Vireo bellii pusillus*)	FE, SE	Matilija Creek, 2.4 miles to the northwest (CNDDB, 2024)
Hoary bat (*Lasiurus cinereus*)	WBWG-M	Ojai area (historic 1905) (CNDDB, 2024)

Common Name *(Scientific Name)*	Status	Nearest Reported Location to the Project Site

BCC	2021 Bird of Conservation Concern (USFWS)
CSC	California Species of Special Concern (CDFW)
FE	Federal Endangered (USFWS)
FT	Federal Threatened (USFWS)
FP	Protected under the California Fish & Game Code (CDFW)
IUCN-VU	International Union for the Conservation of Nature-Vulnerable
List 1B	Plants rare, threatened, or endangered in California and elsewhere (CNPS)
List 2B	Plants rare, threatened, or endangered in California but more common elsewhere (CNPS)
List 4	Plants of limited distribution (CNPS)
PT	Federal Proposed Threatened (USFWS)
SA	Special Animal (CDFW) (CDFW)
SC	State candidate for listing as endangered
SE	California Endangered (CDFW)
TPR	Ventura County Tree Protection Regulations (Non-Coastal Zoning Ordinance
WBWG-M	Western Bat Working Group-Medium Concern

The only special-status plant species observed at the Project site during the biological field surveys were coast live oak and southern California black walnut. Coast live oak is protected under the Ventura County Tree Protection Regulations (Section 8107-25 of the Non-Coastal Zoning Ordinance). These species would not be adversely affected by Project construction or operation.

Special-status species observed at or near the Project site during biological surveys are limited to Nuttall's woodpecker, Allen's hummingbird, wrentit, loggerhead shrike and sharp-shinned hawk. Nuttall's woodpecker, Allen's hummingbird and wrentit are considered Birds of Conservation Concern by the U.S. Fish and Wildlife Service on a regional basis (most of coastal California) but are common in the Ventura-Santa Barbara County region. Project-related habitat loss would be limited to 2.3 acres (bush mallow scrub and laurel sumac scrub), which provides habitat for Allen's hummingbird and wrentit. Due to the abundance of these three species in the project region and amount of habitat loss, impacts to Nuttall's woodpecker, Allen's hummingbird and wrentit are considered less than significant.

Loggerhead shrike is considered a species of special concern by the California Department of Fish and Wildlife (CDFW), when nesting. Based on observations listed on eBird.org from the Ventura River Preserve (located just west and south of the Project site), loggerhead shrike is only observed in the fall and winter, suggesting it does not breed in the Project area. Impacts to loggerhead shrike are considered less than significant due to the relatively small area of habitat loss on a regional basis (2.3 acres) and low potential to nest within or adjacent to the Project site.

Sharp-shinned hawk has been placed on a watch list by CDFW, and there is no evidence of persistent population decline in California (Shuford and Gardall, 2008). This species is a winter visitor to the Project region and does not breed here. Impacts to sharp-shinned hawk are considered less than significant due to the relatively small area of habitat loss on a regional basis (2.3 acres) and lack of nesting in the Project region.

Removal of vegetation as part of clearing and grubbing would have the potential to result in take of migratory birds (protected under the Migratory Bird Treaty Act) through the loss of active nests (with eggs or nestlings). This impact is considered potentially significant, but would be reduced to a level of less than significant with implementation of the following mitigation measure.

BIO-1 To avoid disturbance of birds protected under the Migratory Bird Treaty Act, activities related to the Project including vegetation removal, ground disturbance and construction shall occur outside of the bird breeding season for migratory birds including raptors (February 1 through August 1), if practicable.

If Project activities must occur during the bird breeding season, a breeding bird survey shall be conducted by a qualified biologist no more than 3 days prior to the initiation of ground disturbing activities. The breeding bird pre-construction survey shall be conducted on foot inside the Project footprint including a 300-foot buffer. The survey shall be conducted by a biologist familiar with the identification of local avian species. If active nests are found, ground disturbing activities within a nest setback area surrounding the nest shall be postponed or halted. Ground disturbing activities can occur outside of the setback area. The nest setback area shall be determined by the qualified biologist based on the affected species and the proposed work activity and shall be demarcated by the qualified biologist. All construction personnel shall be notified as to the existence of the nest setback area zone and told to avoid entering the buffer zone during the nesting season. No ground disturbing activities shall occur inside this nest setback area until the biologist has confirmed that that the nest has been abandoned and/or breeding/nesting is completed, and the young have fledged the nest.

b. A small patch (0.01 acres) of sapling arroyo willows (*Salix lasiolepis*) is located along the ephemeral drainage feature at the site and may be considered riparian habitat. No natural community considered sensitive by trustee agencies (e.g., CDFW) occurs within or adjacent to the Project site. Riparian habitat (mulefat and willow saplings) occurs along the River channel near the existing access road crossing. These riparian habitats would not be affected by the proposed Project.

c. Wetlands protected under California or Federal law do not occur within or adjacent to the Project site or at the existing access road River crossing. The ephemeral drainage feature at the Project site does not support wetland vegetation or aquatic habitat. The riparian habitat at the existing at-grade River crossing is not anticipated to support hydric soils or exhibit evidence of prolonged anaerobic conditions and does not meet the State (State Water Resources Control Board) or Federal (United State Army Corps of Engineers) wetland definitions. In any case, these areas would not be affected by the proposed Project.

d. The Project site is located within the County-designated Habitat Connectivity and Wildlife Corridor overlay zone. However, the Project site is not located within a Critical Wildlife Passage Area. The Project site has been repeatedly disturbed by placement of sediments removed from the Robles Facility forebay and no connectivity features were observed during the field survey. There are no natural or manmade features that facilitate wildlife movement through the Project site. Focused regional wildlife movement in the area may occur along the Ventura River, located approximately 600 feet east of the Project site.

The Ventura River is a known migration corridor for the endangered steelhead and may also be used by larger mammals during regional movements between coastal areas and the Los Padres National Forest. The existing River crossing does not support pool habitat (where steelhead would be located if present), such that steelhead would not be directly affected by Project-related use of this existing crossing.

24 hour per day well drilling activity, including lighting may disrupt wildlife movement. However, the drill rig would be located about 600 feet from the River, and lighting would be focused on the well site, which would not result in a substantial increase in light levels at the River. Overall, noise, equipment and vehicle activity and lighting associated with well drilling is not anticipated to significantly impact wildlife movement.

No other development projects have been identified that would result in disruption of migratory movement of species in the Ventura River. Therefore, the Project would not have a significant contribution to any cumulative impacts for this issue.

e. Trees would not be removed, and any required tree trimming would be conducted in compliance with the Ventura County Non-Coastal Zoning Ordinance.

f. The Project site is not located in an area subject to a habitat conservation plan, natural community conservation plan or other local or regional conservation plan.

3.5 CULTURAL RESOURCES

CULTURAL RESOURCES - Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
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?	☐	☒	☐	☐

Setting. A Phase I Archeological Study (Study) was conducted, and report prepared for the proposed Project in April 2019. The Study included a records search from the South-Central Coastal Information Center of the California Historical Resources Information System (CCIC-CHRIS) at California State University, Fullerton. The records search included a review of all recorded historic-era and prehistoric archaeological sites within a 0.25-mile radius of the Project site, as well as a review of known cultural resource surveys and technical reports. The records search did not identify any previously recorded cultural resources within the Project site; however, one resource (prehistoric midden site) is located within the 0.25-mile search radius. The records search was updated on November 5, 2024, and no additional cultural resources were identified.

A field survey of the Project site was conducted by an archaeologist from Padre Associates, Inc. (Padre) on March 8, 2019. The Project site was observed to have been impacted considerably by grading activities and covered with imported fill material. The Padre archaeologist did not observe any cultural resources during the survey.

Significance Thresholds. Significance thresholds are taken from the Ventura County ISAG. Potentially significant project impacts to archaeological resources include:

- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) requirements of Section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not archaeologically or culturally significant; or
- Demolishes or materially alters in an adverse manner those physical characteristics of an archaeological resource that convey its archaeological significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

Impacts and Mitigation.

a. The records search and Phase I pedestrian survey did not identify any historic resources within the Project site. The Project would not impact historic cultural resources on either a project-specific or cumulative basis.

b. The records search and Phase I pedestrian survey did not identify any archeological resources within the Project site. Although no cultural resources were observed, earthwork associated with leveling the drill site and drill cutting disposal area may encounter unreported buried cultural materials. Therefore, mitigation measure CUL-1 is provided to address discovery of archeological resources. Implementation of mitigation measure CUL-1 would reduce impacts to discovered cultural resources to a level of less than significant.

CUL-1 In the unanticipated event that cultural material(s) are encountered during ground-disturbing activities at the Project site, all work shall be stopped within a 100-foot radius of the find and a qualified archaeologist shall be summoned to the Project site to evaluate the significance of the material(s) in question. Work may resume once the find has been evaluated and any necessary action taken to appropriately address the encountered material.

c. Based upon the findings of the Phase I Archaeological Study Report and updated cultural resources record search, no human burials are expected to be located at the Project site. Although no human burials were observed, earthwork associated with leveling the drill site and drill cutting disposal area may encounter unreported buried cultural materials. Therefore, mitigation measure CUL-1 is provided to address discovery of human burials. Implementation of mitigation measure CUL-1 would reduce impacts to discovered human burials to a level of less than significant.

3.6 ENERGY

ENERGY – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Result in 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.	☐	☐	☐	☒

a. The Project would require the use of energy (vehicle and equipment fuels) during the construction period for movement of equipment, materials and workers, and operation of equipment. This use of energy resources would be temporary and limited. Over the long-term, no generators or pumps would be required for well testing and development. Minimal energy use would occur during the monthly maintenance and monitoring of the well. Wasteful, inefficient, or unnecessary consumption of energy resources would not occur, and the Project is considered to have no impact for this issue.

b. The Project is not of a nature or scale to conflict with or obstruct a state or local plan for renewable energy or energy efficiency. No project-specific or cumulative impact would result.

3.7 GEOLOGY AND SOILS

GEOLOGY AND SOILS – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐

GEOLOGY AND SOILS – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

a. i. Based upon a review of the Earthquake Zones of Required Investigation Matilija Quadrangle Map, the Project site is not located within a designated Earthquake Fault Zone. The closest such zone is generally located south of Meiners Oaks and north of Krotona Hill. Additionally, the Earthquake Zones of Required Investigation Matilija Quadrangle Map shows no active fault traces at or proximate to the Project site. No impact would result for this issue and it is site-specific and therefore, not a cumulative impact issue.

ii. The Project site is located in southern California which is a seismically active area. The proposed well would be developed to the standards of Ventura County Public Works Agency Groundwater Section which take into account the seismic conditions at the Project site.

iii. Based upon a review of the Earthquake Zones of Required Investigation Matilija Quadrangle, the Project site is not located within a designated liquefaction zone. The closest liquefaction zone is east of Cooper Canyon Road. No significant impact would result for this issue and it is site-specific and therefore, not a cumulative impact issue.

iv. The Project footprint is located in somewhat level areas near Cooper Canyon Road and not within a designated earthquake-induced landslide hazard zone. The proposed Project would not be affected by landslides or involve any earthwork that may increase the landslide hazard at adjacent land uses.

b. Implementation of the Project would require grubbing and minor earthwork to level the up to 0.7-acre drill rig laydown area and up to 3.6 acre drill cuttings disposal area and detention basins site. Soil disturbance would also be required for well operational infrastructure including the detention basins. CMWD would require the construction contractor to implement appropriate stormwater best management practices. Therefore, soil erosion would be minimal and considered a less than significant impact.

c. Based upon a review of the Geological Map of the Matilija 7.5' Quadrangle, Ventura County, California, the Project site is underlain by alluvial and colluvial deposits (Qha) of the Holocene period, and Sespe Formation of the Oligocene period. Alluvial and colluvial deposits are located on the floors of valleys; includes active stream deposits in hill slope areas; and is composed of unconsolidated sandy clay with some gravel. The Sespe Formation is composed of sandstone, local pebbly, siltstone and claystone; and rocks are generally reddish in color.

The Geological Map of the Matilija 7.5' Quadrangle, Ventura County, California shows no landslides on or proximate to the Project site. Earthquake induced landslide zones were addressed in item a. iv. above.

As discussed above, the Project site is not in a designated liquefaction zone.

Lateral spreading is a common limited displacement ground failure resulting from liquefaction. Since liquefaction is not expected to be a significant hazard for the Project neither is lateral spreading associated with liquefaction.

Collapse can occur when seismic waves pass through liquefiable (saturated granulated) soil. Since liquefaction is not expected to be a significant hazard for the Project, neither is collapse.

The Project site is not within a subsidence zone as shown on online County mapping.

Impacts for the issue areas discussed above would be less than significant and are not subject to cumulative analysis as they are site-specific.

d. Expansive soils are soils that expand when wet and contract when dry. Expansive soils that experience shrink/swell cycles due to cyclical dry and wet seasons can impact foundations and lightly loaded slabs-on-grade when not designed for the anticipated soil pressures. No evaluation of the expansive soil potential of the Project site has been conducted to date. The Project would include installation of a concrete anchor/thrust block, foundation for the proposed stilling well (as needed), and other infrastructure on the site. Any damage to proposed facilities related to expansive soils would not have any effect on the surrounding environment.

e. The Project does not require wastewater service beyond the proposed portable facility that would be located on-site during the construction phase. Therefore, no impacts would result for this issue. This issue is site-specific; therefore, cumulative impact analysis does not apply.

f. The surface geology of the proposed Project site includes alluvium (unconsolidated floodplain deposits) along the Ventura River and the Sespe Formation to the west which is continuous to a depth of 3,200 feet at the proposed well location. The Sespe Formation in and around Ventura County contains an important quantity and diversity of fossils. Some of the earliest assemblages of Eocene vertebrates, particularly rodents, have been found in the Sespe Formation. Some of the mammals noted from the Sespe in Ventura County are mouse-*Microparamys tricus*, mouse deer-*Hypertragulus hesperius*, rhino-*Aminodon sp*., camel-*Protylopus stocki*, tapir-*Dilophodon sp*., lemur-*Dyseolemur pacificus*, lizard-*Peltosaurus macrodon*, *brontothere-Duchesneodus californicus*, oreodonts-*Sespia californica* and *Protoreodon pumilus*, and tarsier-*Crasiops sylvestris*. The Sespe Formation is the only depositional sequence in North America where land mammal faunas assignable to these land mammal ages occur in stratigraphic succession.

Well drilling through the Sespe Formation would mostly occur at deep depths where fossils are not anticipated to occur. In any case, the amount of Sespe Formation affected by well drilling (about 75 cubic yards) would be very small such that the potential to disturb significant fossil remains is low. Therefore, paleontological impacts are considered less than significant.

3.8 GREENHOUSE GAS EMISSIONS

GREENHOUSE GAS EMISSIONS –Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
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?	☐	☐	☐	☒

Setting. Climate change, often referred to as “global warming” is a global environmental issue that refers to any significant change in measures of climate, including temperature, precipitation, or wind. Climate change refers to variations from baseline conditions that extend for a period (decades or longer) of time and is a result of both natural factors, such as volcanic eruptions, and anthropogenic, or man-made, factors including changes in land-use and burning of fossil fuels. Anthropogenic activities such as deforestation and fossil fuel combustion emit heat-trapping greenhouse gases (GHG), defined as any gas that absorbs infrared radiation within the atmosphere.

2022 was the sixth-warmest year on record based on global temperature data. The 2022 surface temperature was 1.55 °F warmer than the 20th-century average of 57.0 °F and 1.90 ˚F warmer than the pre-industrial period (1880-1900). The 10 warmest years in the historical record have all occurred since 2010.

GHG emissions are a global issue, as climate change is not a localized phenomenon. Eight recognized GHGs are described below. The first six are commonly analyzed for projects, while the last two are often excluded for reasons described below.

- Carbon Dioxide (CO_2): natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic degassing; anthropogenic sources of CO2 include burning fuels such as coal, oil, natural gas, and wood.
- Methane (CH_4): natural sources include wetlands, permafrost, oceans and wildfires; anthropogenic sources include fossil fuel production, rice cultivation, biomass burning, animal husbandry (fermentation during manure management), and landfills.
- Nitrous Oxide (N_2O): natural sources include microbial processes in soil and water, including those reactions which occur in nitrogen-rich fertilizers; anthropogenic sources include industrial processes, fuel combustion, aerosol spray propellant, and use of racing fuels.
- Chlorofluorocarbons (CFCs): no natural sources, synthesized for use as refrigerants, aerosol propellants, and cleaning solvents.
- Hydrofluorocarbons (HFCs): no natural sources, synthesized for use in refrigeration, air conditioning, foam blowing, aerosols, and fire extinguishing.
- Sulfur Hexafluoride (SF_6): no natural sources, synthesized for use as an electrical insulator in high voltage equipment that transmits and distributes electricity. SF6 has a long lifespan and high global warming potential.
- Ozone: unlike the other GHGs, ozone in the troposphere is relatively short-lived and, therefore, is not global in nature. Due to the nature of ozone, and because this Project is not anticipated to contribute to upper atmospheric ozone concentrations, it is excluded from consideration in this analysis.
- Water Vapor: the most abundant and variable GHG in the atmosphere. It is not considered a pollutant and maintains a climate necessary for life. Because this Project is not anticipated to contribute significant levels of water vapor to the environment, it is excluded from consideration in this analysis.

The primary GHGs that would be emitted during construction and operation of the proposed Project are CO_2, CH_4 and N_2O. The Project is not expected to have any associated use or release of HFCs, CFCs or SF_6.

CO_2 is also used as a reference gas for climate change. To account for different GHG global warming potentials, emissions are often quantified and reported as CO_2 equivalents (CO_2E). Currently, the CO_2 global warming potential is set at a reference value of 1, CH_4 has a global warming potential of 27.9 (i.e., 1 ton of methane has the same global warming potential as 27.9 tons of CO_2), while nitrous oxide has a global warming potential of 273.

Climate change is having and will continue to have widespread impacts on California's environment, water supply, energy consumption, public health and economy. Many impacts already occur, including increased fires, floods, severe storms, and heat waves. Documented effects of climate change in California include increased average, maximum, and minimum temperatures; decreased spring runoff to the Sacramento River; shrinking glaciers in the Sierra Nevada; sea-level rise at the Golden Gate Bridge and San Francisco Bay; warmer temperatures in Lake Tahoe, Mono Lake, and other major lakes; and plant and animal species found at changed elevations (California Governor's Office of Planning and Research, 2018).

The primary legislation affecting GHG emissions in California is the California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32). AB 32 (Nuñez; Chapter 488, Statutes of 2006) focuses on reducing GHG emissions in California and required the State to reduce GHG emissions to 1990 levels by 2020. CARB prepared a Draft Scoping Plan for Climate Change in 2008 pursuant to AB 32. The Climate Change Scoping Plan was updated in May 2014 and November 2017.

In 2016, the State met the AB 32 target, 4 years early. The State Legislature passed Senate Bill (SB) 32 (Pavley; Chapter 249, Statutes of 2016), which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. With SB 32, the Legislature passed companion legislation AB 197, which provides additional direction for developing the Scoping Plan. The 2017 update to the Scoping Plan focused on strategies to achieve the 2030 target set by Executive Order B-30-15 and codified by SB 32.

Executive Order B-55-18, signed September 10, 2018, sets a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions should be offset by equivalent net removals of GHGs from the atmosphere, including through sequestration in forests, soils, and other natural landscapes. CARB finalized the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) on November 16, 2022 which lays out a path to achieve targets for carbon neutrality and reduce anthropogenic greenhouse gas emissions by 85 percent below 1990 levels no later than 2045.

As part of the Ventura County 2040 General Plan, a GHG emissions reduction strategy (which serves as the County's Climate Action Plan) was prepared and integrated with the General Plan as Appendix B. A baseline GHG inventory was prepared using a baseline year of 2015 and focusing on community-wide emissions. As indicated within General Plan Appendix B (Figure B-1), transportation (36%), solid waste (17%), building energy (17%), stationary source (16%), and agriculture (13%) made up the majority of GHGs in unincorporated Ventura County. The County's GHG emissions forecast predicts a 7.8 percent decrease from the 2015 baseline by the year 2050 for unincorporated Ventura County, based on implementation of existing State and federal regulations. Ventura County GHG reduction goals and targets are similar to the state targets, but are focused on reductions in the County's 2015 GHG inventory:

- Two percent below 2015 levels by 2020
- 41 percent below 2015 levels by 2030
- 61 percent below 2015 levels by 2040

- 80 percent below 2015 levels by 2050

Significance Thresholds. To date, GHG thresholds of significance have not been adopted by Ventura County. On November 8, 2011, the VCAPCD completed a staff report assessing several options and strategies in developing GHG thresholds for land development projects. Although no GHG thresholds were developed, the November 8, 2011 staff report stated that consistency with any GHG thresholds developed by the South Coast Air Quality Management District (SCAQMD) is preferred. On December 5, 2008, the SCAQMD governing board adopted an interim GHG significance threshold of 10,000 metric tons per year CO_2E (including amortized construction emissions) for industrial projects. Due to the lack of any other applicable threshold, this value is used in this analysis to determine the significance of the contribution of the project to global climate change.

Impacts and Mitigation.

a. The proposed Project would result in short-term GHG emissions associated with well drilling and associated activities. Emissions of GHG from Project sources (heavy equipment, stationary engines and motor vehicles) were estimated using CARB's OFFROAD2021 and EMFAC2021 models and emission factors provided in the California Climate Action Registry General Reporting Protocol. Estimated total emissions of GHG associated with well drilling and installation of well head components are 948.6 metric tons CO_2E. As these emissions are less than the significance threshold adopted for this Project, greenhouse gas emissions are considered a less than significant impact on the environment.

Long-term GHG emissions would be generated by periodic motor vehicle trips by CMWD staff and consultants associated with well operation. Annual GHG emissions generated by well monitoring would be approximately 0.2 metric tons CO_2E based on monthly monitoring of well operation. As such, long-term GHG emissions generated by well monitoring would be negligible and not exceed the threshold adopted for this Project.

The issue of global warming is by nature a cumulative one. Therefore, the assessment of Project impacts provided above addresses the Project's contribution to cumulative GHG emissions and effects.

b. The Project site is not subject to any plans, policies or regulations mandating reductions in GHG emissions.

3.9 HAZARDS AND HAZARDOUS MATERIALS

HAZARDS AND HAZARDOUS MATERIALS – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐

HAZARDS AND HAZARDOUS MATERIALS – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
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 one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
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?	☐	☐	☐	☒
f) 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. Diesel fuel for operation of the generators and on-site mobile equipment would be temporarily stored and used on-site during well drilling. In addition, small quantities of materials such as lubricants and coolant for maintenance of equipment would be brought to and used at the Project site during construction. The on-site diesel fuel tank would include secondary containment. All materials would be transported, used, handled and disposed in accordance with all applicable laws and regulations. This minor use of such materials would not create a significant hazard to the public or environment. During long-term operation of the proposed test/monitoring well, hazardous materials are not expected to be located at the Project site. Impacts for this issue would be less than significant and not cumulatively considerable.

b. The Project would be permitted through the Ventura County Watershed Protection District Water Resources Department. As such the potable water production well would be constructed in accordance with Ventura County Well Ordinance No. 4468, and all applicable State of California and local regulations pertaining to well construction, repair, modification and destruction would be complied with. Water well standards are intended to prevent impairment of water quality that results from improperly constructed wells, from defective wells, or from inadequately destroyed wells. The proposed potable water test/monitoring well would be accomplished by a licensed well contractor registered with the Ventura County Watershed Protection District Water Resources Department. The well drilling process would be under the inspection of a Certified Engineering Geologist.

Notwithstanding the above, the Project includes drilling of the potable water test/monitoring well to a depth of approximately 7,000 feet which is unusually deep for a water well, as typical water wells are developed to a depth of less than 1,000 feet. According to the United States Geologic Service small volumes of natural gas, usually methane (the primary constituent of natural gas) can be carried along with water in wells tapping carbonate or shale rock. In some areas, the gas may be present as a continual source. The Project would drill through formations that are shale (e.g., Coldwater, Cozy Dell and Matilija Formations). Because methane is flammable and cannot be detected by smell, precautions (detection and control) are needed to prevent explosions and fire.

Additionally, common impurities in natural gas include nitrogen (N_2), carbon dioxide (CO_2) and hydrogen sulfide (H_2S). Hydrogen sulfide is a colorless gas with an offensive odor characteristic of rotten eggs. It is flammable, toxic and considered a hazardous substance under the Comprehensive Environmental Response, Compensation and Liability Act. In the oil and gas industry, hydrogen sulfide may be released during exploration and other phases of industrial activity. An EPA study found that potential for human and environmental exposures from routine emissions of hydrogen sulfide from oil and gas wells exists, but insufficient evidence exists to suggest that these exposures present any significant threat. However, an accidental hydrogen sulfide release from an oil or gas well could have severe consequences (United States Environmental Protection Agency, 1993). The risks of accidental release of hydrogen sulfide or any other hazardous substance is greatly reduced if operators comply with existing industry standards and practices and regulations.

According to a 1925 report of a successful well abandonment filed with the State Oil and Gas Supervisor for a dry hole (Well No 10-01) located approximately 1.2 miles south of the Project site, no oil was encountered in the subject bore hole (to a depth of 5,021 feet). However, unspecified gas was encountered at 1,800 feet and 3,180 feet.

The Project is not an oil and gas well drilling operation; however, there is a possibility that gases could be encountered during drilling operations and though unlikely such gas could include hydrogen sulfide gas which is considered a potentially significant impact. The Project would comply with all applicable Occupational Safety and Health Agency regulations. Additionally, mitigation is provided below to reduce potential hazard impacts associated with an unanticipated gas release from the Project to a level of less than significant.

Within Ventura County, the Sespe and Coldwater formations among other formations (e.g., Monterey and Saugus [also known as Pico]) are known source of petroleum resources (depending upon the geological structure of the area in questions such as faulting and folding that may trap resources). The Project would drill through the Sespe and Coldwater formations among others. Drill cuttings would be spread on the Project site subject to logging by on-site geologists. While not expected, indications of crude oil or other potential material that would render the cuttings unsuitable for spreading would be specifically observed and reviewed by experienced personnel; if present in significant quantity, off-site disposal in conformance with all applicable local, state and federal laws would be implemented as needed.

HAZ-1 CMWD shall require the contractor to develop and implement a Hazard Detection and Prevention Plan/Emergency Response (Plan) to be followed throughout all phases of construction. The Plan shall include/address but not be limited to the following:

1. The Project well shall have hydraulic blow out prevention (BOP) equipment for the anticipated pressures. The hydraulic BOP equipment should have remote control on ground and a remotely operated choke, rotating head, and a gas buster equipment should be installed before drilling out of surface pipe.
2. The drilling operation shall have a mud program to minimize the risk of having hydrogen sulfide (H_2S) and other formation fluids at the surface. Proper mud weight and safe drilling practices should be applied, and H_2S scavengers should be used to minimize the hazards while drilling. The drilling program should include the use of a Garrett gas train or hatch tester to inspect sulfide concentrations in the mud system.
3. Appropriate prohibitions/limitations on smoking, open flames or spark-producing equipment at the Project site.
4. Appropriate firefighting equipment to be provided and maintained at all times (including but not limited to a minimum of four fire extinguishers having a minimum rating of 40 B:C conveniently located at the rig and additional extinguishers near the fuel storage area, or current regulatory requirement).
5. Use only approved containers/portable tanks for storage of flammable and combustible materials.
6. Worker Education including but not limited to training on the explosive, fire and H_2S hazards associated with the well drilling operation.

7. Requirements for personal protective equipment shall state that H_2S meters should also be positioned on the drilling rig floor to alarm the field crew before the gas enters the work area, or each field member wear personal H_2S monitors in the breathing zone (identified as an 18-inch sphere around the head). The monitors should be set with a visual and audible alarm at 10 parts per million (ppm) and should be bump tested at a frequency of every 30 days.
8. A multi-gas monitor shall be used in the work area. The multi-gas meters should include H_2S, oxygen (O_2), Flammable Gas (Lower Explosive Limit), carbon dioxide (CO), and volatile organic compounds (VOCs) set to alarm at the permissible exposure limits for each type of gas.

c. There are no schools located within 0.25 miles of the Project site. No impact would result for this issue on a project-specific or cumulative basis.

d. Based upon a search of the Project area through the NEPAssist web site (November 7, 2024), none of the following types of sites are located within a 0.5-mile radius of the Project site: superfund site, brownfield site, toxic release inventory site or hazardous waste Resource Conservation and Recovery Act facility. This was confirmed by a search of the California State Waterboard's GeoTracker data base (November 7, 2024), which showed that there are no cleanup sites (including leaking underground storage tanks, cleanup program sites, military cleanup sites or Department of Toxic Substances Control cleanup sites), land disposal sites, oil and gas sites or other classified sites within the Project site or 0.5 miles of the Project site. Additionally, based upon a review of the California Department of Toxic Substances Control's Envirostor data base (November 7, 2024), there are no clean-up sites (including federal superfund, State response, voluntary cleanup, school cleanup, evaluation, school investigation, military evaluation, tiered permit and corrective action sites) or permitted sites (operating, post-closure and non-operating), at the Project site or within 0.5 miles of the Project site.

e. The Project site is not within 2 miles of an airport or within an airport planning area. There would be no project-specific or cumulative impact for this issue category.

f. The Project is limited to construction and operation of a potable water test/monitoring well in an undeveloped area and would not impact emergency response or evacuation plans. There would be no project-specific or cumulative impact for this issue category.

g. The Project site is within a very high fire hazard severity zone as mapped by CalFire; however, there would be no long-term habitable structures proposed as part of the Project. During the construction phase workers would be located on the Project site and would thus be exposed to a risk of impact by wildfire. Additionally, construction activities at the Project site have the potential to increase the risk of a fire start. This is a potentially significant short-term impact.

Operation of the proposed test/monitoring well is not expected to result in a significant fire risk, nor significantly expose persons to the existing wildfire hazard of the area due to the nature of the well operation and since the well would be monitored infrequently.

The short-term fire risk hazard associated with the Project would be mitigated to a level of less than significant with implementation of measure **HAZ-1**. Any contribution the Project may have to cumulative wildfire risk would also be mitigated to a less than significant level by implementation of this measure.

3.10 HYDROLOGY AND WATER QUALITY

HYDROLOGY AND WATER QUALITY – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable 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 substantially increase the rate or amount of surface runoff 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 offsite;	☐	☐	☒	☐
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?	☐	☐	☐	☒

Setting. Water quality in the Project area is regulated by the State Water Resources Control Board and the Water Quality Control Plan prepared by the Los Angeles Region California Regional Water Quality Control Board. The Water Quality Control Plan describes the beneficial uses of regional waters and sets objectives that must be attained or maintained to protect beneficial uses and conform to the State's anti-degradation policy. The Project site is within the Ventura River Watershed and is within Reach 4 of the Ventura River as designated by the Water Quality Control Plan. Reach 4 is considered an impaired waterbody due to elevated water temperature under Section 303(d) of the Clean Water Act.

Impacts and Mitigation.

a. The Project would be constructed in conformance with County well standards which is intended to prevent impairment of groundwater quality. As discussed in Section 3.9, Hazards and Hazardous Materials, drill cuttings would be monitored to ensure that if in the unlikely event crude oil or other material that could be an environmental or health hazard is identified it would be handled in accordance with all local, state and federal regulations. Therefore, the Project is not expected to violate any water quality standards or otherwise substantially degrade surface or groundwater quality on a project-specific or cumulative basis.

b. The eastern portion of the Project site is located within the Upper Ventura River Groundwater Basin. The completion zone of the proposed well would be isolated from the Sespe Formation and not affect other wells or aquifers managed under the Upper Ventura River Groundwater Sustainability Plan. In any case, groundwater production would be limited to testing/monitoring purposes. Overall, the proposed Project would not interfere with sustainable groundwater management.

In any case, should the well observations and monitoring provide results that are favorable for development of an emergency water supply well, additional environmental review would be required to determine the possible impacts associated with operation of such a well. The analysis would be based upon the proposed design and operational parameters of the permanent well which would be developed based upon test results, as well as other baseline environmental factors at the time of analysis.

c. i. The Project infrastructure as shown on the Site Plan (Figure 1) would be located in a relatively level area not subject to excessive erosion or siltation. However, the drill cuttings spread within the Project site may transported off-site into the Canal by stormwater runoff.

HYD-1 The drill cuttings spread at the Project site shall be surrounded by a berm to prevent off-site transport by stormwater run-off.

ii. Project-related impervious surfaces (concrete well pad and associated equipment) would be less than 0.1 acres and would not increase the rate or amount of stormwater run-off from the Project site or result in on-site or off-site flooding.

iii. The proposed project would not increase the amount of stormwater run-off and not affect the capacity of the existing drainage system serving the on-site ephemeral drainage. The proposed Project does not include additional sources of polluted run-off.

iv. The on-site ephemeral drainage feature would be avoided and no improvements are proposed for the existing access road River crossing. Therefore, the Project would not redirect or impede flood flows.

d. Based upon a review of the Flood Insurance Rate Map Number 06111C0558F (dated 1/29/21), the Project site is located in Flood Zone X (Areas of Minimal Flood Hazard) and approximately 650 feet west of the Ventura River Regulatory Floodway. However, the access route would cross the Ventura River Regulatory Floodway during the dry season.

A seiche is a temporary disturbance or oscillation in the water level of a lake or partially enclosed body of water. The Project site is not close to an enclosed body of water such that it would be subject to inundation by a seiche.

A tsunami is a long, high sea wave caused by an earthquake, submarine landslide, or other disturbance. The Project site is not located within a tsunami hazard zone since it is located over 10 miles from the Pacific Ocean.

Because the Project site is not within a flood, seiche or tsunami hazard zone, no project-specific impact would occur for this issue. The Project would not contribute to any cumulative impact for this issue.

e. The Sustainable Groundwater Management Act (SGMA) mandates that local agencies establish locally-controlled groundwater sustainability agencies for managing groundwater resources for basins assigned a medium or high priority. In conformance with SGMA, the Upper Ventura River Groundwater Agency was formed and a Groundwater Sustainability Plan was approved on April 27, 2023 by the California Department of Water Resources. Wells in the Upper Ventura River Groundwater Basin harvest groundwater from shallow alluvial deposits. The proposed well would produce very small amounts of groundwater from a very deep, isolated block of the Matilija Sandstone Formation and would not affect groundwater levels in adjacent wells or otherwise conflict with implementation of the Groundwater Sustainability Plan.

3.11 LAND USE AND PLANNING

LAND USE AND PLANNING – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

a. There are no elements of the Project that would physically divide an established community.

b. As a water project, the proposed Project is exempt from local building and zoning ordinances under Section 53091 of the California Government Code. However, a potable water test/monitoring well would generally be considered consistent with the Open Space land use/zoning designation of the Project site. Project consistency with applicable plans, policies and regulations are evaluated elsewhere under the issue-specific elements of this Initial Study.

3.12 MINERAL RESOURCES

MINERAL RESOURCES – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
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. Aggregate is the only mineral resource of value in the Project region. Aggregate resources are defined as construction grade sand and gravel. The Project site is located in an area designated as MRZ-3 by the California Geologic Survey (2022). This designation indicates the significance of aggregate deposits cannot be evaluated based on available data. The Project site is not located within a Mineral Resource Protection overlay zone or an area that may contain significant aggregate deposits. The proposed Project would require a small amount of aggregate resources for construction purposes but would not generate any regional or long-term demand for aggregate resources or hamper future extraction of aggregate from the area. Therefore, the Project would have a less than significant impact on aggregate resources.

b. The nearest aggregate mining operation in the Project area is the Ojai Quarry, located approximately 1.9 miles north-northwest of the Project site. However, this site is not currently in operation and mostly produces rock, not aggregate. The proposed Project would not hamper the production or distribution of aggregate from this or any other mineral resource recovery site.

3.13 NOISE

NOISE – Would the Project result in:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐

NOISE – Would the Project result in:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
b) Generation of excessive ground-borne vibration or ground-borne 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?	☐	☐	☐	☒

Setting. Noise is generally defined as unwanted or objectionable sound. Noise levels are measured on a logarithmic scale because of physical characteristics of sound transmission and reception. Noise energy is typically reported in units of decibels (dB). Noise levels diminish (or attenuate) as distance to the source increases according to the inverse square rule, but the rate constant varies with the type of sound source. Sound attenuation from point sources such as industrial facilities is about 6 dB per doubling of distance. Heavily traveled road with few gaps in traffic behave as continuous line sources and attenuate at 3 dB per doubling of distance. Noise from more lightly traveled roads is attenuated at 4.5 dB per doubling of distance.

Community noise levels are measured in terms of the A-weighted decibel (dBA). A-weighting is a frequency correction that correlates overall sound pressure levels with the frequency response of the human ear. Equivalent noise level (Leq) is the average noise level on an energy basis for a specific time period. The duration of noise and the time of day at which it occurs are important factors in determining the impact of noise on communities. Noise is more disturbing at night and noise indices have been developed to account for the time of day and duration of noise generation. The Community Noise Equivalent Level (CNEL) and Day-Night Average Level (DNL or Ldn) are such indices. These indices are time-weighted, and average acoustic energy values over a 24-hour period. The CNEL index penalizes nighttime noise (10 p.m. to 7 a.m.) by adding 10 dB and evening noise (7 p.m. to 10 p.m.) by adding 5 dB to account for increased sensitivity of the community during these hours. The Ldn index penalizes nighttime noise the same as the CNEL index but does not penalize evening noise.

The dominant source of noise in the Project area is motor vehicle traffic on local roadways, primarily State Route 33 and Rice Road, and occasional use of agricultural equipment. Consistent with the Ventura County Initial Study Assessment Guidelines, noise sensitive uses are considered dwellings, schools, hospitals, nursing homes, churches and libraries. Existing noise sensitive uses in proximity to the Project site are limited to single-family residences east of the Ventura River, located at least 1,200 feet away.

Noise levels were measured at various locations in the Project vicinity in March 2019, including adjacent to 931 and 967 Oso Road, which represent the closest residences to the Project site. Noise measurements were conducted using a Larson-Davis LXT Type 1 Precision Integrating Sound Level Meter. The Meter was calibrated using a Larson-Davis CAL200 Calibrator at 94 dBA. The measured noise values were 45.8 dBA Leq at 931 Oso Road and 52.6 dBA at 967 Oso Road.

Significance Thresholds. Policy HAZ-9.2-5 of the Ventura County 2040 General Plan requires construction noise to be evaluated and mitigated in accordance with the Construction Noise Threshold Criteria and Control Plan prepared by Advanced Engineering Acoustics (2010). Based on this document, noise-sensitive receptors include:

- Hospitals and nursing homes (sensitive 24 hours/day).
- Residences (sensitive during evening and nighttime – 7 pm to 7 am).
- Hotels and motels (sensitive during evening and nighttime).
- Schools, churches and libraries (daytime and evening, when in use).

Project-related construction activities would primarily occur between 7 a.m. and 4 p.m.; therefore, local residences would not be considered noise-sensitive receptors. However, if evening or nighttime construction work occurs, the following noise thresholds would apply:

- 50 dBA Leq OR ambient noise level + 3 dBA, for evening construction (7 to 10 p.m.)
- 45 dBA Leq OR ambient noise level + 3 dBA, for nighttime construction (10 p.m. to 7 a.m.)

Concerning vibration thresholds, the County of Ventura Initial Study Assessment Guidelines state:

> *Any project that involves blasting, pile-driving, vibratory compaction, demolition, drilling, excavation, or other similar types of vibration-generating activities has the potential to either individually or when combined with other recently approved, pending, and probable future projects, exceed the threshold criteria provided in the Transit Noise and Vibration Impact Assessment (Section 12.2), thereby resulting in a potentially significant impact.*

Impacts and Mitigation.

a. The proposed Project would generate noise during site preparation and drilling activities. Peak day site preparation activities (earthwork) and well drilling noise was estimated using the Federal Highway Administration Roadway Construction Noise Model. Peak day site preparation activities would generate a noise level of 51.3 dBA Leq at the nearest residence. Note that this work would be conducted during daytime, when residences are not considered sensitive noise receptors.

Well drilling would generate a noise level of 58.7 dBA Leq at the nearest residence. Note that this assessment was based on a drill rig noise reference value of 87 dBA Leq at 50 feet based on noise measurements conducted for the Kenai Drilling Rig 38. Drilling would be conducted 24 hours per day and would exceed the evening and nighttime noise significance thresholds, 50 and 45 dBA respectively. Therefore, well drilling noise is considered a significant noise impact. Implementation of mitigation measures NOI-1 and NOI-2 would reduce well drilling noise impacts to a level of less than significant.

The proposed Project would not include any long-term noise generating equipment. Therefore, it would not result in any significant long-term noise impacts on a project-specific or cumulative basis.

NOI-1 The drill rig and associated equipment (including the generators) shall be entirely enclosed with minimum 20-foot-tall temporary sound walls providing a minimum of 14 dB transmission loss at an octave band center frequency of 125 Hz. The sound walls shall be in place whenever drilling is ongoing.

NOI-2 The CMWD shall provide advanced notification about the Project, at least two weeks prior to initiation construction, to residents within a one-mile radius of the Project site. The notifications shall include a description of Project construction activities and schedule including the period and duration of 24-hour per day drilling operations. The notification shall also provide a contact 's name, phone number and email address to whom residents can direct their questions and concerns.

b. Well drilling vibration was assessed using the methodology provided in Section 12.2 of the Transit Noise and Vibration Impact Assessment. Well drilling vibration would generate a peak particle velocity of 0.00058 inches/second at the nearest structure, which would have no adverse effect.

c. The Project site is not located near an airport or airstrip. The closest airport is in Camarillo approximately 20.0 miles southeast of the Project site. No impact would occur for this issue.

3.14 POPULATION AND HOUSING

POPULATION AND HOUSING – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) 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)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

a. The proposed Project would not provide any long-term employment opportunities, or otherwise induce population growth. No project-specific or cumulative impact would occur for this issue.

b. The Project site is undeveloped and would not necessitate the displacement of people or housing. No, project-specific or cumulative impact would occur for this issue.

3.15 PUBLIC SERVICES

PUBLIC SERVICES	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police Protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

a. The Project is limited to a test/monitoring water well and would not generate demands for any public service to the magnitude that new or physically altered governmental facilities would be required. Therefore, no, project-specific or cumulative impact would occur for this issue.

3.16 RECREATION

RECREATION	Potentially Significant Impact	Less Than Significant with Mitigation	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. The Project is limited to construction and operation of a potable water test/monitoring well that would be located upon CMWD property and would not introduce any new persons to the area that would increase the use of existing recreational facilities in the area such that physical deterioration would be expected. Construction personnel may possibly use area recreational facilities, but such use if any would be limited due to the small number of personnel required and the short duration of construction. Impacts would be less than significant on a project-specific basis and not cumulatively considerable.

b. The Project does not include construction of recreational facilities and would not require expansion of existing facilities as no Project-related population growth would occur.

3.17 TRANSPORTATION

TRANSPORTATION/TRAFFIC – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b) Would the project conflict with 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 uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☐	☒

Setting. The Project site would be accessed from State Route 33, via Fairview Road and North Rice Road (light-duty vehicles only), while heavy-duty trucks would access the site from State Route 150 via De La Garrigue Road and the Canal access road.

Impacts and Mitigation.

a. The proposed Project does not include any new land uses that may create demand for transportation facilities and would not conflict with local or regional transportation planning.

b. The proposed Project would generate temporary construction-related vehicle trips, vehicle miles travelled and associated climate change and air quality impacts. The proposed Project would generate up to 70 one-way vehicle trips on a peak day associated with worker and equipment transportation, and materials transportation. About four new peak day one-way vehicle trips would be required to operate the proposed test-monitoring well. Projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than significant transportation impact (Governor's Office of Planning and Research, 2018). Therefore, the Project is consistent with Section 15064.3 of the State CEQA Guidelines.

c. The proposed Project would not involve any changes to public roadways or incompatible uses of existing roadways. Therefore, no Project-related increases in traffic hazards would occur.

d. The proposed Project would not require emergency services nor create conditions that would impede emergency access for adjacent land uses.

3.18 TRIBAL CULTURAL RESOURCES

TRIBAL CULTURAL RESOURCES – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of 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 §5020.1(k), or	☐	☐	☐	☒
b) A resource determined by the local agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code §5024.1. In applying the criteria set forth in subdivision (c) §5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.	☐	☐	☐	☒

a. The Office of Historic Preservation's Historic Properties Directory did not identify any historic properties listed or eligible for listing on the National Register of Historic Places (Padre Associates, Inc., 2024). No impact would result for this issue.

b. The closest historical landmark to the Project site identified on the Ventura County Resources Management Agency Cultural Heritage Board online Ventura County Landmark Map is the Acacia Mansion located at 205 South Lomita Avenue in unincorporated Ventura County about 1.5 miles from the Project site.

The CMWD sent consultation requests on October 23, 2024 to Native American representatives who have requested consultation under AB 52. No responses have been received as of January 9, 2025. Tribal cultural resources have not been identified at the Project site. No impact is anticipated.

3.19 UTILITIES AND SERVICE SYSTEMS

UTILITIES AND SERVICE SYSTEMS – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electrical power, natural gas or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒

UTILITIES AND SERVICE SYSTEMS – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
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?	☐	☐	☐	☒
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. The Project would not induce population growth and the associated need for new or relocated utilities and service systems. The proposed Project is limited to a test/monitoring well. Should this well be utilized as a supply well, the impacts of any new pipelines and associated facilities required to connect the well to the CMWD water distribution system would be addressed in a separate CEQA document.

b. The Project would require limited temporary water supplies during the construction period. The use of these supplies would not impact CMWD's ability to serve its existing customers or future development during normal, dry and multiple dry years.

c. The Project would not require wastewater collection or treatment services other than that associated with the on-site portable facility that would be used during the construction period. Disposal of wastewater produced during the construction period would be the responsibility of the portable restroom provider. It is anticipated that this short-term waste generation would be within the capacity of the facility ultimately used for disposal/treatment.

d. Solid waste generated by the Project may include spent drilling muds and construction materials packaging. Any excess earth material generated by site preparation would remain on-site and/or provided to construction contractors as fill material for other projects, and not disposed in a landfill. Non-hazardous solid waste is anticipated to be disposed at the Toland Road Landfill which has capacity to provide solid waste disposal to its service area to at least 2033. The proposed Project would not affect the capacity of the Toland Road Landfill or affect solid waste reduction goals.

e. The Project would comply with the requirements of legal waste disposal. No impacts would occur on a project-specific and cumulative basis.

3.20 WILDFIRE

WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
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 infrastructure to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

a. The Project site is located in an undeveloped area, and does not include any features that would substantially impair an adopted emergency response plan or emergency evacuation plan. No impact would result.

b. There would be no Project occupants with the exception of construction workers and hydrogeologists that may be using the temporary camper trailer and restroom. Because this occupancy would be temporary, the risk to workers is considered less than significant on a project-specific and cumulative basis.

c. Due to its limited scope and nature, the Project would not 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. However, during the construction period, fire hazard would be increased at the Project site due to the introduction of temporary fuel storage, and personnel as well as the use of equipment in a very high fire hazard area. This is addressed in Item 3.9 g. above. The wildfire risk would be less than significant.

d. The Project would not expose people or infrastructure to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes because occupancy of the site would only be temporary during construction and once a month during long-term monitoring. Any risk exposure would be less than significant due to the unlikely nature of such an event occurring while personnel are at the Project site and the advanced warning service of such events which is available to personnel by the Ventura County Alert Emergency Notification system. With respect to infrastructure over the long-term, while it is possible that post-fire debris flows could impact the Project site, proposed infrastructure at the Project site would be limited and is not habitable. As such, impacts would be considered less than significant. Additionally, it is anticipated that post-fire debris flow hazard mapping would be generated by entities such as the United States Geologic Service and that this information could be used to develop plans to protect the Project infrastructure.

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5.0 LIST OF PREPARERS

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6.0 MANDATORY FINDINGS OF SIGNIFICANCE

MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
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)?	☐	☒	☐	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

7.0 DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature: _____ Date: _____

Title: _____